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# CHRONOLOGIES AND CALENDARS.

# Chronologies and Calendars.

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BY

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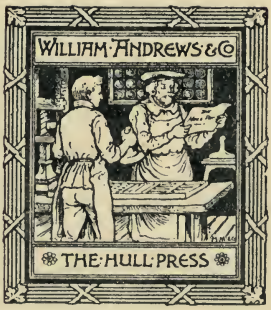

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# CHRONOLOGIES AND CALENDARS.

## CHAPTER I.

## Introduction.

IN writing a treatise upon chronology, it is my wish to take the reader along with me at every turn of the narrative and argument. And while endeavouring to convey to him as quickly as possible the results of my own study in this subject, I will strive, not less strongly, to do so in the most readable way. Let no one be repelled by the idea that a volume dealing with the chronology of history and the calendars in use at the present time is solely for the study-table of Mr. Dry-as-dust. The subject is one which can claim adherents in many diverse fields: the foreign correspondent of commerce must know something of this science; the international voyager cannot afford to neglect its memoranda; and even he who would peruse with intelligent interest Reuter's telegrams from distant lands will find a knowledge of chronology of considerable service.

2. Now, to such a query as 'What's the date of it?' an accurate answer, in the Western style, mentions the month, the day thereof, and the year of the Christian era. If the reply be a written one, the year is commonly shown in four

Indo-Arabic numerals. But how very often are these phrases used in conversation, or the digits preserved on paper without the speaker or recorder troubling himself to enquire whether there are other methods of noting the date? For instance, I can recall a sermon preached about twenty years ago by an eminent English Church divine (now deceased), in which he pictured the absurdity of any rationalist remaining a rationalist who used the year of grace to date his letters. The argument was all right on the surface. As soon, however, as one peruses the chronological authorities, one finds that the Christian era has a limited application; and that there are and were other races —by no means blind to civilisation—which possess more ancient systems of reckoning years, months, and days.

3. To be particular. The year—say 1896—conveys one meaning to us Western Gentiles, another—a very sacred purport—to Jewish minds, and a third and different idea (1) to the Moslem nations. We are apt to forget that it is only to the members of Christendom that these figures refer, in a chronological connection, to present time. To the Jews they memorise a year long ended and past; to the Moslems, (2) a year in a future which is still dim and distant. But that is not all. Go to Asia, and millions of educated persons are regulating their lives, their fasts, and feasts according to an era which is older than our era by fifty-seven years. (3) Which one is right, or is any one epoch the correct chronologic basis, are questions to which this volume will supply approximate answers.

4. Historians, it will be observed, seem to delight to

(1) See chap. iv., sec. 59, for particulars.
(2) See sections 59 and 145 *infra*. (3) See chap. x.

superscribe B.C. and A.D. upon their pages, but they neglect the origin and the principles of chronology. I found that an historian would burden a paragraph with *one* Gregory, (4) some now forgotten spy, but about Gregory the famous Pope and his Calendar (bringing in the New Style), you will find scanty references in the usual histories. Truly we may say that the golden number is a cipher, and the dominical a dead, neglected letter—to the majority of writers upon historical subjects. And yet all these styles, numbers, and letters are indispensably required in order to obtain a proper and valid foundation for the sequence of dates, which proves so essential to every page of history.

5. A quotation will emphasise this:—'Suppose (5) that some thousands of years hence, and in the absence of authentic records, the invasion of England by William the Conqueror were referred to the period in which Augustus swayed the sceptre at Rome: would it be possible for posterity to understand the real import and connection of that incident in the manner in which we now do? Assuredly not. But every anachronism is similar in its bearing to this example; and though perhaps by no means so great in degree, would be found as fatal in the nature of its tendency if prosecuted to its conclusions. It is with no little justice, then, that chronology has been styled the eye, and even the soul, of history; or that without it the subjects of this art could be considered no other than a dark chaos, a wreck of fragments void of order and every other indication of design. Unfortunately the discordances of chronologers in cases of the highest consequence are as enormous as the difference between the truth and the

(4) *Vide* Tytler, vol. iv. (5) Encycl. Edin., *vide* History, p 250.

supposition above mentioned; and hence the comparatively little value as to any philosophical purpose of the generality of histories respecting the earliest times.'

6. To dogmatise that any date is chronologically infallible because it has been repeated and handed down for hundreds, or even thousands, of years, is only begging the question. Errors have often been perpetuated solely on account of the magnitude of their fallacy. For instance, five centuries ago belief in the powers of the philosopher's stone was a universal tenet; so, too, in aërial apparitions and in witches. Nay, more, the thinkers of that epoch—the men who were guiding the nations—declared that the heavens revolved round this earth according to the Ptolemaic Laws. To-day what do we find? To-day all these fallacies are rejected. But chronological progress has not kept step with advancement in ethical matters. Fabulous dates still find a place in records, and are handed down with zealous care.

7. 'History to be above evasion or dispute must stand on documents, not on opinions.'(6) And in another sentence the same great authority cogently observes that 'if men were truly sincere and delivered judgment by no canons but those of evident morality, then Julian would be described in the same terms by Christian and Pagan, Luther by Catholic and Protestant, Washington by Whig and Tory, Napoleon by patriotic Frenchman and by patriotic German.' Coming from such a source, these two observations are of great consequence; and *mutatis mutandis* they apply to the principles of chronology. Chronology should stand upon valid documents; and the

(6) Lord Acton, pp. 45 and 46.

researches and decisions of non-Christian or pre-Christian chronologers should be impartially judged. The greatest difficulty is to get people to remember that the origins of the Anno Domini and the Moslem Reckonings—the former at Rome and the latter in Arabia—are separated from each other only by a few decades of time; that the Advent in the one case was fixed long *ex post facto*, while the Flight in the other era was recorded chronologically almost contemporaneously with the Hegira of the Prophet.

## CHAPTER II.

## The Evolution of Eras.

CHRONOLOGY is defined (7) as 'the science which treats of measuring time by regular divisions or periods, and which assigns to events or transactions (8) their proper dates.' In the first place, we may consider the reckonings used by the Aborigines, which usually took their origin in the need of some rotation for the rites of Pagan worship. The new moon, full moon, and winter solstice have been severally so used. Or the seasons were sometimes marked off by stellar appearances and disappearances. The Zulus call the Pleiades the Digging Stars, as indicating the season for cultivating the soil. The rising of the Nile has likewise aided the fellahin in dividing the year. 'It has risen to within a few hours of the same time, year after year, for unknown ages. At Khartoum it begins to increase early in April, but in lower Egypt the inundation usually begins about the 25th of June, and attains its height in three months; it remains stationary for about twelve days, and then subsides.' (9) The recurring migrations of birds may also be mentioned in the same connection. A missionary (10) tells of a rude reckoning in use among the South Sea Islanders. They had made a deep cut in the earth—as a reminder of some massacre—and year by year

(7) Webster, p. 254. (8) Business transactions as well.
(9) Encycl. Chambers, *vide* Nile.
(10) Dr. Paton's Biography, p. 327.

the cut was repeated, until this curious calendar had, when the Doctor saw it, run up to eighty years. Again, the North American Indian spoke of coming 'over the trail of many moons from the land of the setting sun,' to mean that he had travelled from the west for many months. (11) For any period less than a lunar month, he would use the term 'nights,' not weeks.

9. The Asiatic Indian, long before the Christian era, speaking of the moon, meant a month; he had one word only for the two things, and that word carried the idea of measuring, seeing that time was measured by moons, nights, and winters long before it was reckoned by suns, days, and years. (12) De Foe, in attributing the keeping of a calendar to Crusoe, practically gives us a description of the Runic calendars of Scandanavia and Britain eight hundred years ago. (13) He says for his immortal hero that "upon the sides of this square post I cut every day a notch with my knife, and every seventh notch was as long again as the rest, and every first day of the month as long again as that one; and thus I kept my calendar, or weekly, monthly, and yearly reckoning of time.'

10. Such, then, were the quaint methods adopted by the barbarians of keeping a tally of the years. We pass now to the domain of civilization. The Savants of China, while Norman and Saxon were fighting with each other in England, and unrest, ignorance, and warfare were the sad symbols of European progress, had begun to preserve their opinion in printed characters. Their philosophy and religion were old and established when Christianity was

(11) Young, p. 90. (12) Max Müller, p. 6.
(13) De Foe, p. 117, Cassells' reprint.

dawning in the West. Their first historic writings belong to remotest times—perhaps as early as the twenty-second century B.C. They seem to have divided their epochs into dynasties, for the building of 'The Wall' is placed in the fourth Imperial Dynasty. (14) But there is evidence that from 163 B.C. the methods of dates was to count the years from each accession. Cycles of sixty lunar years were also in vogue, and the latest of such cycles ended in 1864 A.D. (15) The first of such epochs is now computed to have commenced in Anno Mundi 2173, that is, 2636 B.C. This is the first historic cycle. It is a pity that the Chinese neglected the study of astronomy, for the interdependent data and synchronisms would now be of great service. Compared with this, their reputed discovery of the magnetic pole, in pre-Advent ages, is a secondary consideration.

11. The vague Egyptian year was 'so called because it consisted of 365 days, without any intercalculation. As the length of the solar year is nearly 365¼ days, the Egyptian year was, astronomically speaking, too short. In every 400 years it lost 97 days. Thus, in the period of 1504 equinoctial years, an entire solar year was gained by the Egyptian reckoning; and the first of the month of Thoth occurred on each of the 365 days of the solar year in turn.' (B. E., vol. iii., p. 332.) Unlike the Chinese, the Egyptians were earnest students of the stars, and, indeed, invented dances to represent the stellar motions.

12. As to Assyria, there are conjectures that they also were fairly well advanced in astrology; and that at times they chose 360 as the diurnal basis for the year. Now, as

(14) It was began in 212 B.C.

(15) Encycl. Brit. For current calendar see section 147 *infra*

there are 360 degrees in a circle, an equality as to the year possibly arose. Longer than the Chinese, but shorter than the Egyptian year, it follows that neither of these nations had copied their styles from this famous empire. The empire had formerly no importance in chronology, for it belonged to that period of the sciences which was held as being empirical. Besides, many dates could not be checked with the eras of other nations. For the reasons already given, it was, therefore, all the more gratifying to historians to find that Rawlinson had rescued a whole series of dates from oblivion; and that by means of recondite calculations in regard to a solar eclipse in the eight century B.C. But particulars of this discovery will be more conveniently given in chapter xii., under 'Kindred Sciences.'

13. In Phoenician chronology, (16) 'the Phoenician records, no longer extant, gave to their kingdom an antiquity of 30,000 years. Sanchoniathon, who, it is said, lived about 100 years before the Trojan War, has left a chronological table (found in Eusebius) (17) of the antedeluvian, and a few of the post-deluvian, heads of the generations of man.' It only remains for me to add that nothing more romantic or more mythical could be conceived than the contents of these tables. They are simply fables *in excelsis*.

14. 'The Hindoo Maba Yuga,' the same authority points out, 'consisted of four lesser yugas or ages, corresponding to the Golden, Silver, Brazen, and Iron Ages of the Greeks. In the first age (Satya Yuga) all mankind was virtuous; in

(16) Encycl. Metrop., *vide* chronology.
(17) He lived between 264 A.D. and 340 A.D.

the second (Treta Yuga), only three-fourths; in the third (Duapar Yuga), about half; and in the fourth only one part was good.' And no one wonders after this that many of the books of the Brahmins on astronomy are now condemned as false. They have been proved to be antedated. (18) The famous Kalpa (19) was claimed by them as being equal to four and one-third billions of years. The Samvat era, dating from 57 B.C., is not, however, affected by the refutation of the Brahmin's claims. (20).

15. In the Persian (ancient) Empire, Ewald (21) holds that 'a weekly circle of seven days' was kept. But the subsequent discovery that the regions around Thibet have possessed a week or circle of five days only, seems to militate against the argument as to the universality of any weekly circle east or west of ancient Persia. The ruling reckoning is now the Moslem Calendar, in modern Persia.

16. Coming now to the eras of Greece, one finds that there were several. The years were lunar, with seven intercalculated months extra during nineteen years, like the Jewish style. The greatest and most enduring era is that of the Olympiads. This was initiated as from the year 776 B.C., or twenty-three years before A.U.C. (22) It contains four years, being the period which elapsed between the national games. It was not in general use till the third century B.C. There was also the Metonic Cycle (23) and the Callippic Cycle, (24) which are explained in later sections. Regarding the earlier chronology of Greece, Clinton, in his *Fasti Hellenice*, points out that

(18) Pouchet, p. 431. (19) One Brahmin day. (20) See chapter x.
(21) Antiquities of Israel. (22) See section 17 *infra*.
(23) See section 57 *infra*. (24) See section 51 *infra*.

'in all history, where our information is exact, we direct our attention to some leading events, which mark the beginning of a new order of things, and we distribute our subject according to the *character of affairs*. But in the early times of Greece we are obliged to have in view the *nature of our information* in the distribution of the subject. It is enough if we can conjecture the probable date of a few principal facts, by comparing the scanty memorials and uncertain traditions which descended to posterity, and from which the learned of a later age composed their chronology.'

We can thus observe how all nations and races have worked from a simple to a complex chronology:—Beginning by mentioning the year (of the dynasty, reign, or other epoch), then adding the month, and finally the day of the month. Hence as civilization spread over the earth, and international communications grew more frequent, the subject of chronology became a more exact science. No longer content with scanty memorials, the custodiers of national records endeavoured to rescue the history of their own times from oblivion. But too often their efforts have been futile:—

'Time passed and answered with a frown
Whoever raised it *I* will put it down.'

Aided by such calamities as the destruction of the *Fasti* at Rome by the Gauls (B.C. 390), the burning of many sterling muniments in the Alexandrian Library in 391 A.D., and the sacking of Constantinople, with the MSS. lost thereby in 1453 A.D., the ravages of time have obliterated much which was valuable in the records of epochs and

chronological bases. All systems of chronology have suffered, more or less, from the obliterating tendency of time, and the wilful, as well as the accidental, destruction of documents. The most important chronology in the ancient world, that of Rome, is a striking example of what has been said. It is dealt with in the next chapter. Lord Acton's *dicta* regarding opinions *versus* documents, receives, in the history of the "City," a continuous current of high support from those who have striven to obtain cosmos in classical chronology.

## CHAPTER III.

## The Roman and Roman Catholic Reckonings.

THE calendar by Julius Cæsar, and the corrections thereon by Pope Gregory three hundred and fourteen years ago, are the two points of chronological light which gleam through the darkness of the Middle Ages, to guide the historian of the nineteenth century. 'The history of Rome was for centuries the history of the civilized world; and even after it ceased to be the capital of the empire, it was the centre of Christendom, and the most interesting and influential city on the planet.' (25) The city of Rome was, according to the usual tradition, founded in the year 753 B.C. Original myths and accruing inferences have supplied dates to 'presumed historical events,' as Dr. Merivale remarks. (26) At another place the same authority says that it was the writings of the Greeks upon Rome which first aroused the emulation of the Roman annalists, '*to begin in the 6th century of the city to construct, but also in the Greek tongue, a history of Rome.*' Other authorities, appalled at the amount of fiction which was beclouding the first centuries of the city, tried 'to construct an entirely new theory of Roman history, which, as Ortolan remarks, has the singular merit of having been wholly unknown to the Romans themselves.' (27) Numa

(25) Gazetteer, p. 597. (26) Merivale, p. 33.
(27) Mackenzie, p. 3.

the Nonconformist—for so we call him, seeing he would neither conform to Neolithic fashions nor Roman barbarites—built the Temple of Janus, (28) and, with astrological abitities which now cause wonder to some and doubt to others, fixed, as regards linquistic forms, ten months, as we presently use them. The period down to 510 B.C. is known as the era of the kings in which Numa was second.

18. In or about the year 509 B.C., the Romans adopted a novel mode of securing a visible tally to the twelve months, and of counting the flight of time. Every year on (what is our) thirteenth day of September, (29) a large nail was publicly driven into the wall of the Temple of Minerva, the Goddess of Wisdom and Science. This duty was first performed by the praetor, and afterwards by one of the consuls. These officials were appointed first in 244 A.U.C. or 509 B.C., when the years were calculated as containing 354 days, with bi-annual additions of twenty-two days, which made 1,460 days in four years. The Roman pontiffs, in exchange for private bribes, began to corrupt and falsify the Calendar Rolls. They at times, for instance, ordained special intercalculations, so as to favour a moneyed friend, who wished to retain an office, or they failed to announce annual addition when justly needed, because some wealthy legate wished to return to the Eternal City before his regular recall. But, as the art of the pontiffs, which had become an artifice, was not understood by the people, these chronologic tricks passed unheeded for a long period. Finally the civil and the solar year fell months out of time. Consuls, who were supposed to enter upon office in January,

(28) Images were introduced long afterwards.
(29) The Ides of that month.

began their duties in the preceding October. Festivals came to be held at unnatural seasons. (30) The feast for Flora (the Goddess of Spring) was celebrated, for instance, in the middle of July; and a similar anomaly affected the festival of Vertumnus, which was latterly held long after its appointed day, 23rd August.

19. Julius Cæsar unmade this confusion. He decreed, by his imperial mandate, that :—

*(a)*. That the year 46 B.C., then current, should contain 445 days. This instantly brought the year round to the solar year, and created a rational correspondence between the two.

*(b)*. The year's commencement should be 1st of January instead of on 1st of March; that each of the next three years of twelve calendar months should contain 365 days. For a long time before 45 B.C., the supreme magistrates had entered upon their office on the Kalends of January, or rather, they were presumed to have done so.

*(c)*. That the fourth, the 712th year of the city, should contain 366 days. This was *intended to be* the first leap year. The extra day came in February, for it was simpler to have February 29th than January or March 32nd, even assuming the verbal structure of the Roman calendar could permit this. (31)

Before the first leap year came into practice, Cæsar had been assassinated, and an erroneous view was taken of his instructions—every third instead of every fourth year, for the next thirty-seven years, having been wrongly observed

(30) Mommsen, p. 518, and Merivale, p. 354.
(31) Compare the two calendars in sections 141 and 142.

as a leap year. On discovery of these mistakes, a simple remedy was found in the suppression of the four (Julian) leap years then next ensuing. Nicholas specially notices this fact.

20. The Romans had three signal days in every month, and these were Kalends, Nones, and Ides—name-days still permissible to us in Britain under the forms of the Statutory Calendar, as contained in the revised statutes. The first of the month was called the Kalends, and Varro says this term originated in 'the practice of calling together or assembling the people on the first day of the month, when the pontifex informed them of the time of the new moon, the day of the Nones, with the festivals and sacred days to be observed.' In the 450th year of the city this custom lapsed, for lists of the Fasti were then posted in public. The Nones and Ides were in most months on the 5th and 13th days respectively, but in March, May, July, and October, these two name-dates fell severally on the seventh and fifteenth days. The other or intervening days were reckoned as being so many days before the Kalends Nones or Ides as the case might be. (32)

21. As for the annual date of any event, a Roman might refer thereto either (1) by citations of the names of consuls in office then—and the consuls' nominations have been recorded from 366 B.C. to 23 B.C., only two years showing none; or (2) to A.U.C. or the year of Rome; or (3) to a regnal year as, and from, the 732nd year of the city; but the notaries, it can be proved, used to mention the consuls in writings down to the third century A.D. Macaulay, it

(32) It should be remembered that the Greeks, unlike the Romans, had no Kalends.

may be remarked, initiated all his well-known 'Lays of Ancient Rome' by mentioning the respective year of the city, seeing that these portrayed the older city customs. Again, I found a quotation from a deed which bore the seemingly scanty date that Gallus was emperor, but from the regnal lists the date can be fixed as in spring, 252 A.D. Further, the Latinist Eutropius, writing at the end of the fourth century A.D., opens his second book of history as the 393rd year of Rome. (33) We, however, come to one important and positive fact bearing upon the present era, namely, the general council held at Nice, in Asia Minor, in what we call the 325th year after the Advent. This gave rise to the Quarto-Decimans who contended that Easter should be celebrated on the fourteenth day of the first lunar month, near the vernal equinox, holding it as synchronous to the Jewish Passover.

22 But this council was not claimed at the time as being held in a certain year Anno Domini. Even Saint Jerome, writing his *Evangelistas*, calls a first century date as falling in the 'twenty-fifth year after the Passion,' while in the time of the Nicene Council it was becoming the ecclesiastical custom to refer to any year as 'in Indictione Romæ.' The Indiction was a chronological period of much consequence, and even in Scots' Burgh Records of the sixteenth century I have discovered traces of this reckoning. Fifteen years are allotted to an Indiction, and the Premier Indiction, which was introduced by Constantine the Great in connection with tribute-money payments, covered the period from 312 A.D. to 327 A.D. The popes and cardinals of Rome

(33) That is 361 B.C., 'Anno trecentesimo nonagesimo tertio post urbem conditam,' is the phrase he uses.

used this system; but in the twelfth century the basis of computation was changed, so that the Advent became the starting point, and not 312 A.D. Accordingly in the past nine centuries the true Indication *I* means the first fifteen years of the Christian era. To convert the year of that era into Indiction years it is necessary:—

*(a). In pre-twelfth century dates* to subtract 312, and then divide by 15. The whole quotient is the Indiction, and the fraction is the year thereof. Thus the Conquest 1066 would be Indiction 50, year the fourth.

*(b). In post-twelfth century dates* 3 is added, and then a division by 15 is made. The answer means the same as, and is read like the former. The present year accordingly can appear as Indiction 126, year the ninth.

23. However, before the expiry of the first (Constantine) indiction, Dionysius *Exiguus*, (34) an Abbot of Rome, a native of Bithynia, an ancient division of Asia Minor, was considering a new system; and then he issued suggestions for and examples of the 'Anno Domini' reckoning. (35) The change did not find immediate acceptance, for I observe a Latin deed of sale now in the British Museum which bears date the seventh year of the reign of Justin the younger, instead of A.D. 572. In fact, it was afterwards discovered that Dionysius had miscalculated the first date in his era, and chronologers are agreed that the Advent should have been fixed as falling on or about October, the fifth year B.C. Notwithstanding this error, the suggestion of Dionysius as to a new era gradually forced its way westward, especially after

(34) Dionysius the Little.

(35) In his *Cyclus Paschalis*, a MS. as to finding Easter.

the sixth century, when the general papal power began to increase. The Benedictines had been securely founded, the strongest order in the sacred college. The regal weaklings who succeeded Justinian; the brilliancy of Gregory the Great; the institution of the mass; and the origin of Christian architecture, all tended to extol the Church and extend her power. Then came the six centuries of those 'dark ages,' wherein the Church almost alone preserved the muniments of the faith; and the accessory reckoning of the Christianity.

24. The spread of that religion brought the need of the Christian era more clearly before the rulers of the different nations. Traces of the new reckoning are to be found in Italy and France in the seventh century, in Germany and possibly in Ireland in the ninth century, but the difficulty is to be sure that one is getting original writings of these times.

25. From the efforts of Abbot Dionysius in the first half of the sixth century to the Gregorian correction of the sixteenth century, there falls to be noticed only the papal change in dating the indiction, already explained. On the coins issued by the Vatican Minter's, the A.D. dates were used. (36)

25. In the year 1582, Pope Gregory XIII, after much consideration, ordered a fundamental amendment in the calendar because the Romish Church authorities had found that the leap years, being twenty-five in the century, had caused the civil year to break with the solar year by ten days. Had the excess of the solar year been six hours exactly beyond the 365 days, then one leap year in every

(36) Coins, dated thus, must have helped to familiarise the different nations with the year of grace.

four years would readjust the balance. But this is not so, and twenty-five leap years *per* century caused the fraction of a day to increase so as to be really observable. In 1582, the error amounted to ten days; in 1882, to twelve days—in Russia for instance. The papal authorities therefore set themselves to a two-fold task :—correction for the past, and protection against the future were the remedies necessary. The papal mandate accordingly directed :—

(*a*). The suppression *of the record of* ten days, thereby correcting the past errors; and

(*b*). The rejection of three leap years in every four hundred years, so that while 1600, 2000, and 2400 are now to be known as leap years, yet 1700, 1800, 1900, and 2100 are not. In other words, every non-century year is a leap one if it divides by four without remainder, and every century year which divides by 400 evenly is also a leap year.

27. This Gregorian correction not only caused the spring equinox of 1582 to fall on the same day of the month as it did at the Nicene Council, twelve hundred and fifty-seven years before then, but the corrected calendar will prevent even an error of twenty-four hours from arising in three thousand years. To be even more particular, the calculating party has gone to work and he finds that in about 700,000 years, the British Christmas will be in midsummer. The outlook need not alarm us. Fittingly then is the Gregorian correction spoken of as the 'new style,' (37) which a spirit of conservatism has kept Russia, Servia, and Greece from adopting for themselves. The spread of the English language in Russia very recently renders the rejection of the

(37) The 'old style' calendar will be found in sections 144 *infra.*

old style more certain, and if it comes before the end of the century, it will save the addition of yet another day of chronological error to their present burden of twelve days. But happily even when I write, the official international press news indicates that 'although it is now generally understood that the Russian government contemplate the introduction of the Gregorian calendar at the close of the century, it has not yet been decided whether the reform shall be effected suddenly and entirely, or by gradual process. The latter scheme consists in omitting the first twelve leap years after 1900, and the change from the old style to the new would in this way cover a period of forty-eight years. There are now twelve days difference, but in 1900 there will be thirteen days, and this unlucky or fatalistic number has not a little weight with superstitious slavs who have hitherto been opposed to a reform of the Julian calendar. If the graduated plan be adopted there will be only nine days difference on the 1st of March, 1908, on the same date in 1912 eight days, and so on during every recurring fourth year until 1944, when the reform will be accomplished. It is, however, by no means certain whether this plan will be adopted or the more sudden and radical change. The majority are in favour of the latter, whilst the former scheme promises to receive less opposition from the ecclesiastical authorities, and is not calculated to shock the popular sentiment so violently as the sudden reform.' See also section 64 *infra.*

28. Keeping in mind that the Christian era, as a chronological basis, became current in Eastern Europe only in the sixth century, it is interesting and important to recall that Christianity, as a religion, had arisen in France and England

in the fourth century; in Ireland in the fifth; and in Scotland during the sixth centuries. Thereafter, that is after the A.D. basis had been chronologically suggested, history records that Flanders became Christianised in the seventh; Saxony the eighth; Denmark in the ninth; Russia, Hungary, and Norway during the 10th centuries. (38)

29. It will be convenient to mention at this point that the Papal Bulls were dated by reference to the year 'ab incarnatione.' The Romish Brieves, on the other hand, bore to be given 'in the year of the nativity.' The Encyclicals are dated thus, 'Given at St. Peter's, Rome, the 29th day of June, in the year 1896, and the nineteenth of *our* pontificate, Leo XIII., Pope.' This is the latest example, being the famous Encyclical Letter upon the Unity of the Church.

(38) *Vide* Haydn's Dictionary of Dates, under 'Christianity.'

## CHAPTER IV.

## The Eras of the Creation.

HAVING now got abreast of the practical chronology of Christendom, it will be convenient to direct my readers to the eras which have been assigned to the creation of the world. The figures, as will be seen, exhibit nothing but a series of disenchanting disparities. For instance we have

| | | | |
|---|---|---|---|
| I. | 7388 B.C. | according to | the modern Grecians. (39) |
| II. | 7382 „ | „ | Josephus. |
| III. | 5829 „ | „ | Scaliger. |
| IV. | 5508 „ | „ | the ancient Greeks. |
| V. | 5499 „ | „ | Sextus Africanus. |
| VI. | 5411 „ | „ | Hales. |
| VII. | 4968 „ | „ | L'art de vérifier les dates. |
| VIII. | 4905 „ | „ | Nennius' *Historia.* |
| IX. | 4004 „ | „ | the Bible margins from Usher. |
| X. | 3970 „ | „ | Sir John Skene. (40) |
| XI. | 3760 „ | „ | the present day Jews. |

31. That the various eras could be more successfully investigated were there one standard for the computations is quite plain. Certainly if the age of the earth, as regards the origin of species, could be agreed on, it would act as a chronological trunk whence could branch the eras and

(39) See Brewer, p. 424.

(40) Reg. Mag., p. 1, 'Malcolmus 2, filius Kennethi, coepit regnare Anno Mundi 4974, Christi 1004.'

calendars of all nations. This would secure an exactness for which chronologers and historians have been searching. The world's age is, however, only a subject for scientific disagreements. To the masters in such quests the planet, with feminine-like reluctance, refuses to reveal the secret, and so end the wordy warfare.

32. When (to quote from Lord Salisbury's Presidential address to the British Association in 1894) one scientist, Lord Kelvin, has 'limited the period of organic life upon the earth to one hundred million years, and Professor Tait, in a still more penurious spirit, cut that hundred down to ten,'(41) who then, we ask, can hope to strike the golden mean between an æonian and the actuarial age of our planet? 'On the other side of the account,' the president proceeded, perhaps sarcastically, 'stand the claims of the geologists and biologists. They have revelled in the prodigality of the ciphers which they put at the end of the earth's hypothetical age. Long cribbed and cabined within the narrow bounds of popular chronology, they have exulted wantonly in their new freedom.' Thus we see that certain figures are given by one scientist, only to be questioned and subverted by a professional brother. The birth-year of a whale and the age of the Californian giant trees are computable to comparative exactitude, but it seems practically impossible to link botanical facts, geological ideas, and astronomical figures into some united chronology regarding the earth's age. We consequently must deal with chronology measurable by some "ascertained order or succession of events," which Argyle defines as 'Time-relative.'

(41) Brit. Assn., p. 12.

33. Another authority scornfully says, 'Modern ingenious theorisers in development, who would have men recognise in the reptiles of their museums the remote ancestors of their race, consistently believe that they find in the savage a type of the primeval state of man.'(42) And half a century ago Hugh Miller wrote, 'The six thousand years of human history forms but a portion of the geologic day that is passing over us. They do not extend into the *yesterday* of the globe, far less touch the myriads of ages spread out beyond.'(43) And he added, prophetically one may say, for it has come to pass, 'What I believe now all theologians, even the weakest, will be content to believe 50 years hence.' In section 48 I deal with the term 'Age' in detail.

34. But the chronologist, dealing with historic facts, must neglect those cipher-laden totals which represent the evolutionist's *anno mundi* in the closing decade of the nineteenth century. Contrasting these later views with those at the end of last century, a well-known authority, Mr. A. C. White, says that 'until the beginning of the present century theories of the earth were of the most fantastic and speculative nature. Imaginary and supernatural agencies, extraordinary and alarming catastrophies, were freely called upon to explain phenomena which could not be rationally elucidated without violating the fixed belief in the literal interpretation of Scriptural accounts of the Creation and the Flood. The pages of romance do not contain more whimsical notions than do the writings of the pioneers of geology. Glimmers of truth now and then appeared in these early works, but not until Hutton published his

(42) Hamilton, p. 2. (43) Schools and Schoolmasters, p. 223.

"Theory of the Earth" one hundred years ago, did these feeble glows rise into a steady light. This admirable book, aided by the publications of Playfair, the talented exponent of Hutton's views, effectually combated the catastrophic theories of its predecessors, and placed the study of geological changes on a scientific basis. Observation took the place of speculation, and the authority of fact that of tradition, but not without a long and severe struggle. Philosophers, however much impressed by the value of geological facts and deductions, were loath to give up old and cherished ideas. They clung to their traditional faith in spite of the eloquent illustrations of Playfair and the philosophical reasoning of Lyell. The name of geologist was, in the minds of many people fifty years ago, suggestive of atheistical tendencies, and such a subject as the age of the earth could not at that time be discussed without suspicion of irreverence. At the present day, however, it is one of the open questions of science, and has been freely debated by philosophers of high standing in various branches of study. The geologist, the physicist, and the astronomer have all applied their knowledge and means of investigation to the solution of this difficult problem, and their labours have had considerable effect in advancing the state of knowledge and thought in all their sciences.' And very recently Dr. John Struthers said, 'If the mode of "creation" by descent applies to forms below man, as the evidence goes, it applies no less to the origin of human species. This disposes of the Adam and Eve tradition, and all that hangs by it.' (44)

35. Before quitting this portion of the subject, it is

(44) *Scotsman*, 4th Aug., 1896.

interesting to find out how the date of the Flood is given by various chronologers. According to Usher, the Deluge occurred in B.C. 2348. But fourteen other authorities place the cataclysm as follows :— (45)

| | | | | |
|---|---|---|---|---|
| One | (the LXX.) puts it in the | | 32nd | century B.C. |
| Five | „ | „ | 31st | „ |
| One | „ | „ | 29th | „ |
| One | „ | „ | 26th | „ |
| Four | „ | „ | 23rd | „ |
| Two | „ | „ | 22nd | „ |

On such chronologic evidence, I fear an impartial jury would bring in a verdict of 'Not Proven,' as regards the time, though a majority would admit the occurrence, of *a* Deluge. (46)

(45) Encycl. Metrop., *vide* chronology.

(46) The sudden uprising (from volcanic causes) of the Andes is one scientific explanation of *a* Flood. This is the opinion held by scientists such as Pouchet.

## CHAPTER V.

## Biblical Chronology.

THE pages of the Revised Bible (47) show no dates, while many editions of the Authorised Version exhibit a chronological as well as a numerical pagination. In this we see one essential difference between the two versions. It is true that King James' version did not contain any system of yearly dates, but at the beginning of last century, B.C. and A.D. years were printed on the authority of Archbishop Usher's chronology. (48) Their minute precision cannot be regarded as a proof of accuracy; and at the present time the pretended years are not acknowledged, even by many divines. This is specially so regarding the B.C. dates, in which there is an ominous divergence between the figures derived from different textual sources. The Hebrew text reveals one, the Septuagent (or LXX.) another, and the Samartin Codex a third, and often vastly different period for a Scriptural event. Josephus fares no better at the hands of the critics, (49) and the chronological statement of that author are now looked upon as being to a great extent worthless for the purposes of historic reference.

37. The very conservative Professor Sayce remarks that

(47) The recent publication of a Revised Apocrypha has re-awakened interest in the revisers' works.

(48) In his *Annales Testamenti.*

(49) His 'Antiquities' were published by him in the 13th year of the Emperor Domitian, *i.e.* 93 A.D.

Assyrian inscriptions have shown that the chronology of the Book of Kings is hopelessly wrong. (50) Writing in 1893, Canon Driver says: "The Biblical chronology of the Kings of Judah and Israel is in perplexing disagreement with that fixed by the contemporary Assyrian inscriptions. It is allowed by modern commentators and historians that in cases of divergence, the latter is to be preferred.' (51) That the Usher system of dates should not be 'regarded as more than the sequence of the events' is therefore now a very general request by Biblical scholars.

38. This attitude toward the chronology of the Hebrews is quite logical when facts come to be faced, for (1) the copious citations of genealogies prove that the rough and unreliable mode of reckoning by generations—the word itself is Biblically very common—was too often the chronological basis; (2) the regnal years were counted by tens of years; but (3) otherwise septennates or weeks of years (being periods of seven years each) were also in use. In some centuries the Jordon acted as a chronological divider in the kingdoms, separate systems being used.

39. Though the sacred years of the Hebrews were held to begin with the new moon in the month Nisan, yet Cruden conjectures (52) that in remote times (?) they reckoned their months by the sun, and then thirty days equalled a month; and this he holds to be proved by the tradition that the Flood lasted 150 days, or five months. It is thought that their lunar basis was adopted from Egypt. In any event, the conjecture by Cruden has not been generally accredited.

(50) Quoted in *Gain or Loss*, p. 118. (51) Driver, p. 13.
(52) Concordance, *vide* month.

40. Writing upon the minor prophets, Farrar says 'the Bible would be far better understood in its historical aspect if it were arranged with greater reference to chronology. As it is, the Books of the Prophets, like the epistles of the New Testament, are heterogeneously flung together with reference only to their length and size. This is, of course, a purely accidental principle of arrangement.'(53) And in another place the same authority calls 'attention to the certainty that the Biblical chronology of the Kings is merely given in round numbers. It consists mainly of multiples of twenty.' This opinion is homologated in the very recent volume by Henry Hill on the 'Kings of Israel and Judah,' when he says 'the difficulties under the head of chronology seemed almost insuperable.'

41. For the purposes of cross-references between the old Hebrew Calendar and the Greek and the Roman reckonings, I append(54) a table showing the months which corresponded in each style. The first column or Hebrew is in the order of the ancient sacred year, and the Roman names are in the progression usual prior to the Julian correction of 45 B.C., that is the year's commencement being in March-April.

| *Hebrew.* | *Syro-Macedonian.* | *Roman.* |
|---|---|---|
| Nisan | *i.e.* Xanthicus | *i.e.* Mar. and April. |
| Jyar | ,, Artemisius | ,, April and May. |
| Sivan | ,, Daesius | ,, May and June. |
| Tamuz | ,, Panemus | ,, June and July. |
| Ab | *i.e.* Loüs | *i.e.* July and Aug. |
| Elul | ,, Gorpiaeus | ,, Aug. and Sept. |
| Tisri | ,, Hyberberetaeus | ,, Sept. and Oct. |

(53) Farrar, p. 23. (54) From Whiston, p. 856.

| *Hebrew.* | | *Syro-Macedonian.* | | *Roman.* |
|---|---|---|---|---|
| Marchesvan | „ | Dius | „ | Oct. and Nov. |
| Casleu | „ | Apellaeus | „ | Nov. and Dec. |
| Tebeth | „ | Audynaeus | „ | Dec. and Jan. |
| Shebat | „ | Peritius | „ | Jan. and Feb. |
| Adar | „ | Dystrus | „ | Feb. and Mar. |

In a subsequent section, special notice will be taken of the method of intercalculating the second Adar (55) or be-Adar.

42. There are several evidences that after B.C. 306, the era of Seleucides became current for purposes other than the religous calendar. That era counts from the first year of the dynasty of Seleucus, or B.C. 312. In less than two centuries its influence expired in Palestine, the Jews continuing the Jubilee year. *i.e.*, the fiftieth year.

43. The Hebrew day was reckoned from sundown to sundown, but of the seven days in a week, only the Sabbath had a special name, the others being merely the first day, the second, and so on, of a week. Until the Romans came, the Jewish night had three watches—ten and two o'clock being the division points. Thereafter the

| | | | |
|---|---|---|---|
| 1st | watch | was from | dark to 9 (no twilight in Palastine). |
| 2nd | „ | „ | 9 to midnight (middle watch). |
| 3rd | „ | „ | midnight to 3 (cock crow) |
| 4th | „ | „ | 3 to morning (morning watch) |

44. Coming now to the chronology specially connected with the events mentioned in the New Testament, it is surprising to find that twenty years ago Dr. Conder (56) said, 'with regard to the chronology of the New Testament, the only part which, notwithstanding long discussion, can as

(55) See section 58 *infra.* (56) Bible Educator, vol. iv., p. 27.

yet be said to have been brought within the province of reasonable certitude, is the narrative of the Acts of the Apostles, together with the dates of such epistle as may be referred to in the history therein contained. The pious student will fondly seek to attach a distinct date to each of the events recorded in the Gospels, but it is not a help but a hindrance to intelligent study to hold out the idea that this has yet been done.'

45. But coming down to the most recent trend of chronological and theological opinion, there is one point which should be mentioned. It is the date of the Quirinus Taxation. Wycliffe (57) reads thus: 'And it was don in the daies a maundement went out fro the Emperor August that al the world schulde be discryued. This firste discryuing was maad of Cyryn, iustice of Sirie.' (58)

46. This statement, which is perplexing (seeing Cyrenius or Quirinus was not appointed 'Justice' or Governor of Syria till a decade after the Advent), has been made even more perplexing by the wording of the R.T., which is, 'This was the first enrolment made when Quirinus was Governor of Syria.' Now, it only remains to note that this sentence leaves the date in question still beclouded. But it can hardly be a matter for wonder to find the revisers fighting shy of a praetorian *dictum* when one of the deepest thinkers upon Biblical enquiries has affixed to the verses the opinion that they revealed only 'chronological incon-

(57) 1388 A.D., Wycliffe and Purvey, p. 144.

(58) Modernised thus: 'And it was done in those days, a command went out from the Emperor Augustus that all the world should be described. This first describing was made by Quirinus, Justice of Syria.' A census was the practical outcome.

gruities.' (58a) And incongruities they remain on the eve of the twentieth century of the era which they were intended to herald. If the theologians, pictured by Hugh Miller and the 'pious student' of Conder, are disconcerted to find that Biblical Chronology is an unsubstantial fabric, it is well, as Dr. Marcus Dods said, in another connection, that they 'should be disconcerted.'

(58a) Strauss (sec. 32).

## CHAPTER VI.

# Sundry Cycles and Chronological Details.

NOW that the reader has become familiar with the greater epochs and eras, it will be suitable to introduce to his notice a series of lesser cycles; and for more convenient reference these are arranged in alphabetical order.

ACTIUM.—This era (deriving its title from the great sea-fight) dates from 31 B.C. Octavian thereafter became Emperor of the then known word as the result of that battle. After the epoch of Augustus (otherwise Octavian) that is from 27 B.C., there were thirty-three imperial reigns till the partition of the Empire in 364 A.D. It will suffice to give these in order of time so far as Constantine the Great, (59) when Rome became *nominally* a Christian empire. The successor of Augustus was

| | | | | | |
|---|---|---|---|---|---|
| Tiberius. | He began to reign | | 14 | A.D., | succeeded by |
| Caius Caligula | ,, | ,, | 36 | ,, | ,, |
| Cladius | ,, | ,, | 40 | ,, | ,, |
| Nero | ,, | ,, | 54 | ,, | ,, |
| Vespasian (60) | ,, | ,, | 68 | ,, | ,, |
| Titus | ,, | ,, | 78 | ,, | ,, |
| Domician | ,, | ,, | 81 | ,, | ,, |

(59) Who decreed that *dies solis* should thereafter be the Christian Sunday.

(60) Who, when unsatisfied with any day's labour, wrote in the album '*diem perdidi*' ('I have lost a day').

| | | | | | |
|---|---|---|---|---|---|
| Nerva | He began to reign | | 96 | A.D., succeeded by | |
| Trajan | ,, | ,, | 97 | ,, | ,, |
| Adrian | ,, | ,, | 116 | ,, | ,, |
| Antonius Pius | ,, | ,, | 137 | ,, | ,, |
| Marcus Aurelius | ,, | ,, | 161 | ,, | ,, |
| Commodus | ,, | ,, | 180 | ,, | ,, |
| Pertinax | ,, | ,, | 193 | ,, | ,, |
| Septemus Severus | ,, | ,, | 194 | ,, | ,, |
| Caracella | ,, | ,, | 211 | ,, | ,, |
| Opilius Macrinus | ,, | ,, | 217 | ,, | ,, |
| Heliogabalus | ,, | ,, | 218 | ,, | ,, |
| Alexander Severus | ,, | ,, | 222 | ,, | ,, |
| Two Gordians | ,, | ,, | 235 | ,, | ,, |
| Gordian Juniors | ,, | ,, | 238 | ,, | ,, |
| Philip the Arabian | ,, | ,, | 243 | ,, | ,, |
| Decius | ,, | ,, | 249 | ,, | ,, |
| Gallus Hostilius | ,, | ,, | 251 | ,, | ,, |
| Valerian Gallienus | ,, | ,, | 253 | ,, | ,, |
| Claudius | ,, | ,, | 268 | ,, | ,, |
| Aurelian | ,, | ,, | 270 | ,, | ,, |
| Tacitus and Florian | ,, | ,, | 275 | ,, | ,, |
| Probus | ,, | ,, | 276 | ,, | ,, |
| Carus | ,, | ,, | 282 | ,, | ,, |
| Diocletian | ,, | ,, | 283 | ,, | ,, |
| Constantius Chlorus | ,, | ,, | 305 | ,, | ,, |
| Constantius the Great | ,, | ,, | 306 | | |

'Annalists invariably number the place of each sovereign from Augustus downwards. Francis II., the last emperor, was 120 from Augustus,' (61) namely, to 1806.

(61) H. R. Empire, p. 259.

48. AGES.—The term 'Age,' as referring to some particular period or track of time in history, is of importance. For instance there are (*a*) the Augustan Age; this is a variable expression, and it arose from the fact that later writers recognised in the literature of the reign of Augustus Cæsar the highest state of purity, Thus, again, the reign of Louis XIV. was an Augustan Age in the literature of France, and possibly (*pace* Queen Anne) the present reign of Victoria will be known as the Augustan Age of Britain. (*b*) Archeological Ages are divided into three sections:—The Stone, the Bronze, and the Iron Ages. (*c*) The Geologic Ages are as follows:—The Archæan, (62) the Silurian, (63) the Devonian, (64) the Carboniferous, (65) the Mesozoic (66), the Tertiary (67), and the Quaternary. (68) (*d*) The Middle Ages—the period of time intervening between the decline of the Roman Empire and the revival of letters. Haldane regards it as beginning with the sixth and ending with the fifteenth century. (69) Of course this specification can apply to Europe only.

49 ANNUS MAGNUS.—The Chaldaic astronomers observed that the stars shift their places at about the rate of a degree in seventy-two years; according to which calculation these stars will perform one revolution in 25,920 years, at the end whereof they stand as they where when the period began. (70) But I may add that the expression 'Great Year,' when used by Josephus, meant a period of

(62) The times of no life and simplest forms of life.
(63) The invertebrætes era. (64) Fishes predominant.
(65) The coal plants' period.
(66) Or reptiles' epoch. (67) When mammaliæ appeared.
(68) Or æra hominis.
(69) Webster, p. 31. (70) Brewer, p. 1317.

600 years, and referred to the reputed longevity of the Antediluvians.

50. Black Days meant all those days on which it was unlucky to commence any undertaking. Such days are regularly indicated in the old abbey calendars of Scotland, in the famous Codex Membranaceus of Worms (a Runic calendar dated 1328); and in the calendar attributed to Bede. (71). A specimen of a runic calendar is given on a later page.

51. Callippic Cycles contain periods of seventy-six years, beginning in the third year of the 112 Olympiad, or A.U.C. 424 or B.C. 330. It was proposed by Callippus, the Greek astronomer, as an improvement on the Metonic Cycle after mentioned.

52. Corea.—Proclamations in this country, when signed only by the prime minister, are dated by reference to the month and the regnal years thus: 'Eleventh second moon: first year of Kon Yang.' But where the edict is by the sovereign, it runs: 'Sixth moon of the 503rd year of dynasty,' *i.e.*, July, 1894. (72)

53. Christmas.—Yuletide has been held as a sacred festival by numberless nations. Christians hold December 25th as the anniversary of the birth of Jesus. China on the same day celebrates the birth of Buddah, son of Mâya. (73) The Druids held during the winter solstice the festival of Nolagh. (74) Egypt held that Horus, son of Isis, was born towards the close of December. Greece celebrated on the winter solstice the birth of Δημήτηρ

(71) Proceedings S.A., vol. xxix., p. 236.
(72) Corea was unknown in Europe till about 250 years ago.
(73) Bunsen. (74) Higgins.

(Ceres), Βάκχος (Bacchus), and Ἡρακλῆς (Hercules). India. Numerous Indian tribes keep Yuletide as a religious festival. (75) Mexico holds in the winter solstice the festival of Capaerame. (76). Persia at the same period honours the birth of Mithras. (77) Rome celebrated on December 25th the festival 'Natalis Solis Invicta.' Scandinavia held at Yuletide the festival called Jul, in honour of Freya, son of Odin. (78).

54. Epact.—This word appears in our calendars, and indicates that there are an excess in days of the solar year over the lunar year. As the former has 365 days, and the latter only 354, this would make a maximum difference of eleven days. But the epact for any one year is the number of days from the last new moon of the preceding year to the first day of January immediately following. (79)

55. Julian Period.—This is 'a chronological period of 7,980 years, combining the solar, lunar, and indiction cycles ($28 \times 19 \times 15 = 7,980$), being reckoned from the year 4,713, B.C., when the first year of these several cycles would coincide, so that if any year of the period be divided by 28, 19, or 15, the remainder would be the year of the compounding cycle. The Julian period was proposed by Scaliger, to remove or avoid ambiguities in chronological dates, and was so named because composed of Julian years.' (80) It was handy for fixing years in a common basis between 4,713 B.C., and 1582 A.D., or later, according to the adoption of the Gregorian correction on the Julian

(75) Monier Williams. (76) 'History of the Indies,' vol. ii., p. 354.
(77) Gross. (78) See as to foregoing Brewer, p. 1321.
(79) For 1896 it was 15.

leap years. Historians hardly ever refer to, and never cite, the Julian period, but on the other hand they very frequently count the years—no matter in what period or country—as opening with 1st January. Hence as regards dates falling between 1st January and 25th March, there is often a year of difference in the historical dates. (81)

56. LOUISIAN EPOCH was the invention of an Amiens friar in 1683. Its factors were:—a solar cycle (28 years) × a lunar cycle (19) × 30, and thus its duration was meant to be 15,960 years, but it never had more than one academic interest even in France.

57. THE METONIC, OR CYCLE OF THE MOON, was first heard of in the first year of the seventy-fifth Olympiad. (82) Its author, the celebrated Athenian astrologer, Meton, found that nineteen years made a period at the end whereof the moon was to the sun in the same position as the lesser was to the greater light at the start of the period. It was such a valued chronological check that it was cited in the Greek *Fasti* in letters of gold, hence the "golden number" of our calendar. To find this cycle add one to the A.D. year, and divide by nineteen. The remainder is the golden number. Thus 1895 plus 1 = 1896 ÷ 19 = $99\frac{15}{19}$: therefore fifteen is the golden number for 1895. (83)

58. MODERN JEW'S RECKONING.—Through a curious and accidental typographical concurrence, which some time ago appeared in a Scottish newspaper, the great chronological gulf which exists between the Jews and Christendom is

(80) Webster, p. 805. (81) See also chapter vii., section 79 *infra*.
(82) Now known as 432 B.C.
(83) The fixing of Easter in the Romish and Anglican communions throughout Christendom is founded annually on this cycle.

clearly set out. I give the portion of the paragraph:—'September 20th, 1895. Edinburgh Jews and the New Year celebrations. The Jews are at present celebrating their New Year, 5656.' (84) But not only in Scotland. Over all the world the same chronological celebration was being observed with religious zeal. In fact, so careful are the Jews on this and other fasts, that they—though numerically small—practically stop all business in the exchanges and the bourses on their fast days. It is a thing for wonder how a few millions of Jews can control the commerce and the monetary interests of the Gentile world. The cardinal points of the Jewish way of counting time are as follows:—Era, *anno mundi*: years, lunar: correction, 384 days triennially, or ve-adar, comes in seven times every nineteen years. The civil year begins in our September-October; the sacred year in March-April. Thus:—

A.M. 5651 began on 15th Sept., 1890, A.D.
„ 5652 „ 3rd Oct., 1891, „ intercalculated month, ve-adar in previous spring.
A.M. 5653 began on 22nd Sept., 1892, A.D.
„ 5654 „ 11th Sept., 1893, „
„ 5655 „ 1st Oct., 1894, „ intercalculation as above. (85)

The Jewish day, like their month, touches two days of the A.D. calender, so with this peculiarity, and the intercalculations, the two calenders are practically synchronous. In longer periods the New Years recur on the same days—1835, 1881, and 1927 for instance, the 24th September

(84) The juxta-position of the types was such that 5656 was on the next line immediately below 1895.

(85) See also section 41 *supra*.

beginning these years. The current almanac is in section 149.

59. MOHAMMED'S ERA.—The New Year's day of this, the era of Hegira or Mohammed's flight from Mecca to Medina, is reckoned as corresponding to a date *afterwards named* 16th July, Anno Domini, 622. That day was chosen as the starting point because it was the New Year's day of the then commencing lunar or Arabic year. Hedjrah, or Hegira, is simply the Arabic word for a 'going away'; and it was first used in this chronological connection by the Calif Omar in the first year, now known to us as 640, A.D. This A.D. style was first suggested by Dionysius, (86) thirteen years previously, as already mentioned; and it cannot be doubtful that the Calif Omar never heard of the A.D. calender. It is interesting to compare the dates in the year of these two styles, and to observe the retrogression which always goes on in the Moslem periods, whereof the basis is lunar, not solar. Thus:—

| | | | | | | |
|---|---|---|---|---|---|---|
| 17th | Aug., | 1890, | A.D., | began | 1308, | A.H. |
| 7th | ,, | 1891, | ,, | ,, | 1309, | ,, |
| 26th | July, | 1892, | ,, | ,, | 1310, | ,, |
| 15th | ,, | 1893, | ,, | ,, | 1311, | ,, |
| 5th | ,, | 1894, | ,, | ,, | 1312, | ,, |
| 24th | June, | 1895, | ,, | ,, | 1312, | ,, |

Elaborate formulæ have been invented for turning Moslem into Anno Domini years, but the following ready, though sufficiently accurate, method is useful:—(87)

*Deduct*, 3 per cent from the Moslem year.
*Add* to the answer 622.

(86) See section 23, *supra*.
(87) In Chamber's Encycl., under Hegira, or Hedjrah

Thus taking 1313 : 3 per cent to be deducted gives 40 : 40 from 1313 = 1272 : then add 622, and that makes 1895. The other month I was reading a well-known Moslem journal, and on reciting a certain edict, the journal stated that it has been signed at the Mosque 'the 10th day of Shawall, 1313, which the Christians, in their ignorance, call the 24th March, 1896.' (88) In all my researches I have not met with any data so strikingly egotistical as this chronological memoranda. It calls for no comment.

60. MONTHS.—The names of the months (so far as used in Christendom) call for some notice in this chapter:— January: this month was sacred to Janus, the god of the sun and the year. February: the Roman festival of Purification was held on the 15th of February. March, Mars' month:—

> "The stormy March has come at last
> With wind, and cloud, and changing skies." (89)

April: there was no god attached to this month. May: the name of a goddess christened this month. June: some have accorded to Juno (the goddess) and others to Junius (the tribe name), the honour of giving a name to this month. July: this month was called Quintilis (the fifth month according to the pre-Cæsarian Calendar), but in honour to Julius Cæsar it was named after him, more especially as he was born in this month. (90) August: in like manner, this word was adopted in honour of Augustus Cæsar, (*a*) on account of his victories and (*b*) because he had entered upon

(88) The Christians, even by the Mussulman's criterion, cannot be more ignorant chronologically than Jewish, Buddhists, or Chinese.

(89) William Cullen Bryant; he died in 1878.

(90) The exact year A.U.C. and B.C. of Cæsar's birth is still in dispute 100 B.C. is usually given.

his first consulate in this month. Till then it was known as Sextilis. September was formerly, till B.C. 54, the seventh month. For nineteen and one half centuries it has been the ninth of the *historical* year, which has been held to commence as from January, notwithstanding international divergences otherwise. October, November, and December were respectively the eighth, ninth, and tenth months of the old Roman Calendar. In December (in the northern hemisphere) occurred the winter solstice. It was a period of time when (under Paganism as under Christianity) special festivals were held. See these detailed in section 53 *supra*.

61. OLD STYLE; (91) NEW STYLE.—I have prepared this table as the best explanation of the currency in the two styles :—

| Style | Empire | Months | Divided | Days in com. year | Days in leap year | Leap year currency | Dates |
|---|---|---|---|---|---|---|---|
| O.S. | Roman | 12 solar | Kal: Ides: Nones. | 365 | 366 | 1 in 4 | Under the Cæsars |
| ,, | Western Roman | ,, | ,, | ,, | ,, | ,, | 650 A.D. |
| ,, | Saxon | ,, | ,, | ,, | ,, | ,, | 9th cent. |
| N.S. | Papal | ,, | Also Saxon week-days | ,, | ,, | 97 in 400 | 1582 |
| ,, | British | ,, | Saxon week-days | ,, | ,, | ,, | 1752 |
| O.S. | Russian | ,, | week-days | ,, | ,, | 1 in 4 | 1896 |

62. NABONASSAR.—Ancient history can recite how the monarch of this name acceded to the Babylonion throne, but it has been left to the indefatigible Ptolemy to give us a clue to the year of the accession, which he has done by leaving on record certain astronomical phenomena; and

(91) See also section 89 *infra* as to the persistence of O.S.

calculations founded thereon point to the year 747, B.C. (February 24th) as the year and month in which Nabonassar ascended the throne. It was the style adopted by the Alexandrian Greeks and also by some other peoples. It was a great public fact, and hence became a convenient terminus from which to start computations for events.

63. PALMYRA. A recent traveller has mentioned facts regarding inscriptions in this famous ruined city which, in my opinion, indicate that the era of Seleucidae was current to the latter part of the third century A.D. (92) He discovered a statue, erected by certain generals, that bore the inscription, which he translates as follows: 'To their sovereign, in the month of Ab, the year 582.' This, in the anno domini reckoning, is August, 271. Half a decade later the Romans conquered the district.

64. RUSSIAN STYLE. This era (the era of Constantinople) was, Nicolas states, adopted in Constantinople 'before the middle of the seventh century.' It begins as from the year 5508 B.C. This year is the date of the creation according to the Greek Church, whence the Russians adopted the reckoning, and followed the same till the reign of Peter the Great. Writing in 1727, Voltaire has some delicate raillery about the Russians' inability to give reasons for their Mundane era. Pointing out that they (believing that the creation occurred in autumn had begun their year then) he ridicules the idea for 'autumn in Russia,' he says, 'was spring in countries at the Antipodes.' (93) But Peter the Great, as Brockmann points out, 'ordained that the year should begin with 1st January.'

(92) Palmyra is distant from Jerusalem 315 miles, according to the caravan route.

In that unique decree he gave a reason for this in the words, 'Because not only in many maratime regions of Christian Europe, but also with the Slavs (which on all things agree with the Orthodox Church), in Wallachia (now Roumania), Moldavia (now North Roumania), Servia, Dalmatia, Bulgaria, and Greece, the year begins to be counted from 1st January.' This imperial ukase, having been issued on 20th December, 1699, the then ensuing first day of January began the 1700th year A.D. Of course this was still the old style so far as regards the leap years; and accordingly, as they observed not only 1700 but also 1800 erroneously as leap terms, it follows that to-day their and our reckonings are out of touch by twelve days—two days more than the ten corrected by Pope Gregory at 1582. Further, this necessitates the affixing of two dates in international letters, instruments, or declarations; and this is done either January $\frac{1}{13}$, 1895, or 1st January (13th January) —the former date (1st) being the old, and the latter (13th) the new style. This is not only cumbrous, but costly. A very good object-lesson on the international inconvenience arising from the forced use of two styles will frequently be found in the advertising columns of (say) *The Times*. There, for instance, on the 16th September, 1895, is a notice pertaining to the Russian Loan. A drawing had taken place 'on 20th August (1st September), 1895, reimbursable from the 19th November (1st December), 1895, at Saint Petersburg.' Indeed, in this single official notice of

(93) Histoire de Charles XII., p. 17. 'L'ère des Moscovites commencait á la creation du monde; ils comptaient 7,207 ans au commencement du siècle passé, sans pouvoir rendre raison de cette date: le premier jour de leur année venait au 13 de notre mois de Septembre.'

130 lines, one hundred dates in duplicate have to be inserted; and seeing that a double number of brackets are necessarily used, the extra expenses of printing must be considerable. And to think that one touch of the new style, imperially allowed, could soon make the whole of Christendom chronologically akin! See section 27 *supra* on Russia's intention of adopting the N.S.

65. Solar Cycle. (94)—The first year of the first cycle hereof corresponds with 9 B.C. on the Julian Calendar; it means a period of twenty-eight years, at the expiry whereof the days of a month fit once again into the same calends, nones, and ides, or week-days, according to the century in question, as at the first day of the cycle. Thus the new years of 1866 and 1894 (being twenty-eight years apart) fell both on a Monday.

66. Sunday or Dominical Letter, is one of seven letters—A to G inclusive—used in almanacs to denote the Sunday; *dies dominica*, the Lord's day of later Latinists. In leap years, January and February have one letter, and March to December a new one; otherwise one letter runs for one twelvemonth, and the succession of the letters is in backward order. Thus, 1894 had G, and 1895 had F. The moveable feasts of the Church are found (not fixed) by referring to the Sunday letter and relative tables, includ- the *golden number* which shows the year of the Metonic or lunar cycle. (95)

67. U.S.A. Reckoning.—Before the 1st of January, 1752, the colonies in America having been British possessions, the calendar of the old country was circulated; and, after the date in question, the New 'Style' prevailed in

(94) Or the cycle of the sun. (95) See section 57 *supra*.

terms of the imperial statute. Indeed, so far as the essentials are concerned, it is current at the present time. Having thrown off the British yoke they became the United States (virtually as from 4th July, 1776), and it was considered necessary to speak not only of Independence Day, but also of the year thereof. Accordingly for a long time the presidential proclamations have run as having been signed at the city of Washington, the day, month, and year A.D., and the Independence of the United States, such and such a year. The religious festivals of the Anglican and Roman Communions do not differ from the diets observed elsewhere in Christendom. (96) The Dog Days, as indicative of torrid periods, are reckoned as between 25th July and 5th September. The so-called New World, many think, should be styled the Older World, as there are traces of prehistoric man; and very recently calculations have been furnished to the Niagara commissioners to the effect that the Falls are 31,000 years old. The basis of calculation having been the real rate of recession in the Falls during the last half century, the figures may not be far amiss.

68. Year of our Lord.—It is highly probable that Charles III. of Germany was the first monarch to use the phrase *in Western Europe*, which he did in an edict during the year 879.

69. Year of Light is a Masonic term. The craft claims to have had a uniform community from the building of the temple of temples, which Ideler, the Prussian astronomer, contended really began an era in ancient chronology, viz., May (*i.e.*, about Mid-spring), B.C. 1015. But the Masons

(96) See also section 140 *infra*, wherein a new calendar which has been suggested is explained.

nowadays go back much further, and in diplomas (bi-lingual documents, Latin and English,) two dates are stated, 'The year of our Lord' and 'of Light,' the latter being dated from 4004 B.C. But it must be remembered that (*a*) the Jewish Free Masons us the *Anno Mundi* date instead of the A.D.; (*b*) Moslems, the era of Mohammed; (*c*) the Hindoo Free Masons, the Samvat and (*d*) the Chinese Free Masons, the regnal year and lunar month.

70. YES-DEGERD, ERA OF—This term is sometimes found in histories of Hindustan; and is commonly reckoned to run from the year 632 A.D. But it has only local interest when compared with the imperial importance of the principal Hindoo eras. (97)

(97) See also sections 145 *et seq. infra*. And here it may be convenient to say that (among minor eras) the year 1897 harmonises, in some quarters of its currency, with (1) 2022 of the era of Tyre, (2) 1072 of the Collamic era, and (3) 1306 of the Telingaic Fusli epoch.

## CHAPTER VII.

# The Chronology of England.

FORMING their opinion from what they took to be *original* charters, some authorites have held that the Christian era was used in England about the close of the eighth century. Even admitting that there may be contemporary copy charters bear A.D. dates, I prefer, after inspecting the deed in the British Museum, to consider the charter or grant by King Eadred (dated A.D. 948 in Roman numerals) as the earliest original writing which contains the Christian style of years. (98)

72. While wondering whether such an iconoclastic decision did not border on chronological vandalism, I was somewhat pleased to find that Mr. Rounds attacks many traditions which were considered historic, and English dates which had been viewed as fixed for all time. For instance, he proves *inter alia* that Richard the Lion changed his official seal not 'in 1194, but in 1198, and between January and May that year.' But Mr. Rounds goes further. He considers the English 'consecutive political history only begins at the Norman Conquest,' and he riddles the prior narrative in the scathing words, 'Our jejune native chronicle.' Another authority proceeds, 'The charter of Edward the Confessor to Westminster Abbey is generally thought to be

(98) The charter is in the British Museum. The time of legal memory (it may be mentioned) dates from and after the reign of Richard I. (1189-1199).

the oldest *sealed* charter of any authenticity in England.' (99) And a third has declared that 'there was no written Anglo-Saxon literature until the conversion of the *people* to Christianity' (*i.e.*, at the opening of the seventh century). (100)

73. Again, most people would say that the Great Charter was first signed in 1215 *Anno Domini*, but the deed only sets forth that it was executed—the king set his seal thereto, for regal autographs came into use only in Richard II.'s reign (101)—by John on the 13th of June, in the seventeenth year of his reign. Twenty years later, the date of an Act of Parliament reads, 'Wednesday, the morrow after the feast of St. Vincent, the 20th year of the reign of King Henry, the son of King John.' This mode of dating Acts was also in vogue in Scotland. (102)

74. Probably one of the earliest printed statutes is the one known as 'Anno 24 Henrici VIII.,' made 'in the session of this present Parliament holden upon prorogation at Westmynstere, the 4 daye of Februarye in the 24 yere of the reign of our most dradde soveraigne Lorde Kinge Henry the VIII.'

75. The revisers of the English statutes, whose labours were begun in the present generation, have had a deal of bother with doubts and questions upon the true dates of the earlier statutes. They give a list of fifty 'statutes of uncertain date,' as they term these acts, but from internal evidences they are able to fix these enactments in some of the Parliamentary Sessions during the period from 1267 to 1325

(99) Blackstone, vol. II., p. 401.
(100) Webster's Introduction, p. xxxi.
(101) He reigned from 1377 to 1399. (102) Compare section 86 *infra*.

respectively. They explain in footnotes the variances in former translations—how, for instance, the 'statute of breaking prisons' had long been attributed to the first year of Edward II., *i.e.*, 1307, whereas its true date is 23 Edward I., being 1295. (103) Again, one act is wrongly dated by a whole reign, viz:—Statutu sup' aportam'to armor (=a statute forbidding bearing armour). It was, until thirty years ago, placed as seventh year of Edward I., instead of 7 Edward II. To crown the chronological confusion, the revisers had actually to unravel two lists of acts of different Parliaments which had got intermingled. All this proves the chaos which had been so long handed down from generation to generation.

76. John Gower, Chaucer's friend and fellow-poet, lived between 1327 and 1408. In his prologue he says:—

> "I thenke make
> A boke for Englonde's sake
> The yere sixtenthe of King Richard." (104)

And in the oldest diary of English travel (Torkington Pilgrimage) the inductive clause reads the 'ffyrst the ffryday afor mydlent, (105) that was Seynt Cuthberdy's Day, and the XX day of Marche, in the VII yer of Kyng Herri the VIIIth, and the yer of ower Lorde God MCCCCCXVII.' (106)

77. Resorting to numismatics, I find that Edward VI. was the first English king who issued year-dated coins.

(103) Revised Statutes, vol. i, p. 63.

(104) This is important, for poets usually reflect the popular way of doing things: and we may conclude that the regnal year was mostly in use at the date in question, 1392.

(105) On the Friday before mid-lent, being the 20th March.

(106) Or in the historical date, 1516.

These were the testoons—copies of a French silver coin, valued in England at eighteenpence. They are dated (1549) MDXLIX. Thus it is under three hundred and fifty years since the English currency began to bear a year of issue on the legend.

78. As mentioned in a former chapter, (107) the new style or Gregorian correction was issued in Italy in the year 1582 ; and it would appear that the English Parliament, in the 27th session of Queen Elizabeth (1585), considered a bill to introduce the new style into England, but the measure reached a second reading only. The wonder is that such a Papal principle got so much support then.

79. But even in 1585, sovereigns had a fondness for inserting the regnal year as well as the year of the Christian era. But as regards dates after Charles I., it is very important to observe that though his son did not ascend the throne *de facto* till Tuesday 29th May, 1660, yet the regnal year then beginning was, and is, reckoned as the twelfth year of his reign up to 29th January, 1661. From 30th January, 1661 to 29th January, 1662 was, and is, the thirteenth regnal year of the second Charles, and so on thereafter. Of course 30th January was the day of the execution of Charles I., and by a legal fiction (which was evolved from an excess of loyalty) of his son's hypothetical accession to the vacant throne. This is a most important chronological fact, but is often neglected by historians. (108)

(107) See section 26, *supra.*

(108) The Cromwellian period may be called the era of the usurper, according to the phraseology used by the Parliaments of the second Charles—the word "usurper" occurring very often in the enactments.

## CHAPTER VIII.

# The Chronology of Scotland.

NOTWITHSTANDING the discovery every now and again of Scottish genealogical tables, dating, it is claimed by their discoverers, to the very first ages of time, it must be confessed there is no accurate year to year history until the tenth century of the Christian era. No such thing as systematic chronology appears till the twelfth century. To talk of restoring, as from the eighth century backwards, an *anno regni* reckoning by calling Kenneth II. the 69th King of the Scots, is simply to enter the domain of the variest fable and conjecture. (109)

81. On the other hand, it is quite logical to take Cæsar as our guide, and go back into the era of the Druids; to watch them holding 'a great many discourses about the stars,' as he mentions they did; to observe these Western astrologers fixing the date of the winter solstice, for instance. (110) Now, although the date tallies practically with our Christmas, it is anachronism to say that the Druids knew anything of that Christian commemoration day. Truly in this, as in other moot points, 'historians add to the difficulty by applying the language of their own times to events or public transactions of a different state of society,' as the restorers of the Scots Acts of Parliament

(109) Columba's Life, p. 26, 'In 563 A.D., years had not begun to be counted from the birth of Christ.'

(110) Robertson's Lectures, p. 5: and compare section . . . as to Yule-tide celebrations.

have remarked regarding historic questions of Scottish origin. (111)

82. Coming now to the epoch of the Romans, which may be computed to extend from the end of the first to the beginning of the third century, we find that the customs of these invaders never took root in Caledonia. Doubtless the Caledonians received then the elements of civilisation (112); but if the Romans implanted the rudiments of writing and arithmetic, it must be confessed that these seeds never sprang up till many a century afterwards. In the sixth century, however, amidst the gradual exit of Paganism in favour of Christianity, the use of numbers became needful. Historic associations assumed a changed retrospect. The earliest missionaries would speak of events as taking place so many tens and hundreds of years after the Passion, (113) and references to the years of Rome would be discarded. Some few heathen ceremonial dates seem to have continued; for instance, at the beginning of summer, the Feast of Beltane. (114) This was afterwards fixed for the kalends of May month, (115) and it formed, along with Hallowmas, (116) Candlemas, and Lammas, (117) the oldest Scottish quarter days.

83. Returning now to the epoch of primary records of Scotland, namely, the reign of Malcolm Canmore, who died in 1093, I find that the earliest authentic writings are the

(111) Thomson's Acts, introduction.

(112) At the point of the sword.

(113) And *e converso* they would count back to that event by a similar notation.

(114) Gaelic: *Bealteine*, Bel's (the sun's) fire.

(115) In Ireland its date was the summer solstice.

(116) Now 1st November, N.S.

(117) Loaf Mass; first fruits of harvest offered by the pious.

charters of Edgar (1098-1106). These venerable writs are now amongst the Coldingham charters in Durham Cathedral, and are in Latin. The earliest specimen of continous writing in the Scots vernacular language is believed to be the *decreet-arbitral* of 1385, by Andrew Mercer, Lord Meiklour. (118)

84. But in dealing with those far-off times, it is well to remember Doctor Johnson's observation as to the immense difficulty of getting at a *fact*. In the same connection one may recall ~~that~~ Sir Walter Scott's remark (speaking of Sir William Wallace), 'It is a great pity we do not know exactly the history of this brave man; for, at the time when he lived, every one was so busy fighting, that there was no person to write down the history of what took place, and afterwards, when there was more leisure for composition, the truths that were collected were greatly mingled with falsehood.' This is a pregnant sentence, and explains the origin of many a myth.

85. In the reign of Alexander I., who died in 1124, some signs of cosmos in chronology appear. There are then Latin charters giving the year of grace, though not the month or day thereof. As we go forward, the month with the year becomes commoner; and often the annual terms are given as so many years '*ab incarnatione*.' (119) About the year 1250, the A.D. reckoning is officially disregarded. For a long time thereafter recourse is had to a rougher chronology, namely, the mentioning of a feast day, or the day of a month *plus* the regnal year.

(118) See Thomson's Acts, Introduction.

(119) This *modus numerandi* was borrowed by the sects from the date-style of the Papal Bulls. See section 29 *supra*.

86. It is interesting to observe that the agreement regarding the surrender of Stirling castle was, that failing its being relieved by the 'Festival of Saint John the Baptist' then next to come, the castle would be surrendered. The insertion of 24th of June, 1314, as the day of surrender is *ex post facto.*

87. The famous Treaty of Northampton revealed nothing about 1328, but only that it was executed the first day of March, and in the second year of Edward's reign. However in the year 1424, the Scottish Parliament reverted to the Christian era dates, but the years were nearly always called in each case the year of God. The first of a month sometimes appeared as the kalends, and the second last day as '*penultimo die*,' or the penult day. The earliest MS. calendar is that found among the Ayr MSS., dated 1428. Notable events are chronicled, *e.g.*, saints' days, dedication of a church, a great storm. It is in Latin. In perusing the records of an ancient corporation of Scotland of this same century—the fifteenth,—I found that the clerk of that body had used the Indiction terms in Latin to date his minutes. Verily Latin seems to have been then in Scotland what it was in Eastern Europe a millennium before the vulgar or common tongue, so far as regards the small section of the people who could read and write.

88. By proclamation dated on 17th December, 1599, (120) James VI. and his council ordained, 'That in all time coming the first day of the year shall begin yearly upon the first day of January.' Nevertheless, England still held to the former Scottish and English custom of beginning the year on 25th March. Let us, therefore, observe an

(120) See section 64 *supra* for Peter the Great's chronological ukases.

international traveller's calendar of these times. Let us suppose he left Dumfries on 1st January, 1700. He reached Carlisle that evening. The date would be 1st January, 1699. He proceeds through England, and he sails from Dover to Calais on 31st January, 1699 (English date). He arrives on French soil that same evening to find it is 10th February, 1700. All this is explained when one recalls the fact that the old style prevailed in England till 1751, but that France had adopted the new styte in 1582.

89. In the seventeenth century, owing to civil uproar, there are many chronological inaccuracies. Even the erudite Samuel Rutherford, author of the famous *Lex Rex*, and the more famous epistles, was not always in the habit of dating his 'Letters,' and some of these bearing mention of years, are wrongly dated, as is provable by internal evidences. In view of this vague custom, it is singular that Viscount Stair, in 1681, should state that the date of a writing was an essential, but this opinion was judicially overturned in 1706. Notwithstanding the British statute, on the new style as from 1752, it is surprising to find that in this present year the publishers of the oldest Scottish almanac still 'call attention to the great inconvenience occasioned by reckoning fair or market days according to the old style.' They also point out that the confusion is all the greater because, 'in some places the old style is believed to be 11, and in others—and that correctly—12 days later than the new.'

90. In closing, I may add that, having inspected the numismatic collection in the Museum of Antiquaries at Edinburgh, I gleaned some points of chronological importance. The Scottish coinage begins in the reign

of David I. On his death, in 1153, there is a gap of seven years, but from 1296 the issues are continuous and unbroken. Reign by reign the superscriptions become finer, and the ducat piece is the first coin to show an A.D. year, 1537. (121)

(121) Scotland was thus seven years before England in this matter. See section 77 *supra.*

## CHAPTER IX.

## Upon Great Britain's Calendar.

COMPLETING the futile Elizabethan effort in chronology, the British Parliament of 1751 discussed reforms in the calendar, Lord Chesterfield initiating the proposal. (122) His motion for adopting the new style was carried into force by the statute 23 George II., chapter 50. The preamble of that act sets forth, 'The legal supputation (reckoning) of the year of our Lord in that part of Great Britain called England, according to which the year beginneth on the 25th of March, hath been found by experience to be attended with obvious inconvenience, as it differs from the usage of neighbouring nations, and also from the legal method of computation' in Scotland. (123) Then having admitted that the Julian calendar was at the time eleven days wrong or beyond the solar year, the preamble proceeds to refer, in a roundabout way, to the Gregorian or new style. (124)

92. Thereafter the needful enactments follow. Briefly these were:—

(*a*), The year 1751 as such was never finished. It began, of course, on 25th March, and ended as on 31st December, both 1751, a year of 281 days.

(122) Bright, p. 1014.

(123) Revised Statutes, vol. II., p. 246, *et seq.*

(124) The title of this act is, 'An act for regulating the commencement of the year, and for correcting the calendar now in use.'

(*b*). *The record of* (125) 11 days of September, 1751, was held as non-existent, so that the 3rd to 13th days of September (both days inclusive) were written off.

(*c*) The Gregorian method, (126) already explained of, calculating leap years, was also adopted, so that errors in the future cannot occur. At least the error will be only of consequence after many thousands of years.

93. The calendar annexed to the statute is interesting, as showing the vitality of the Roman reckoning, and is important, being still, in the strict letter, the Statute Law Calendar of Great Britain, and as such is repeated in the Second Revised Statutes issued in 1889. (127)

94. In 1859, it is proper to remark, three anniversaries were abrogated in the statutory calendar, both 30th January, King Charles' martyrdom; 29th May, Charles II.'s nativity and return; 5th November, 'Papists' conspiracy. This is the statutory designation, and is used now for the purpose of identification only—it being in my opinion that it always was a misnomer.

95. The statement of the regnal years on recent British coins seems to cause difficulty to some people, for while I was revising the MS. of this volume, there appeared in the correspondent's column of an important Scottish newspaper a letter which read, 'It would be interesting to know who is responsible for the error on one of the dates on the crown pieces of 1893 or 1894. On the crown piece of 1893 the legend runs, "Anno regni lvi.," and on the crown piece for

(125) The rabble, as depicted by Hogarth, believed they were being defrauded of 11 days.

(126) See section 26 *supra*. (127) It is given at section 142 *infra*.

1894 it runs, "Anno regni lviii." Which coin bears the correct legend?' To this query I thought it best to send an immediate reply, which was as follows, 'Your correspondent, although he is mistaken in thinking there are errors in the dates of the recent crown pieces, has raised an interesting point in chronology. The regnal year, he says, on the 1893 coin is 56; while on that of the next year (1894) 58 is given as the regnal year. The explanation is as follows:—The date of Her Majesty's accession or era (128) having been 20th June, 1837, it follows that 55 years thereafter expired on 19th of June, 1892. Therefore

(*a*). From 20 June, 1892, to 19 June, 1893 = Anno Regni 56
(*b*). „ „ 1893 „ „ 1894 „ „ 57
(*c*). „ „ 1894 „ „ 1895 „ „ 58

Thus we see that the 1893 coin, being issued between 1st January and 19th June, 1893, is properly dated A.R. 56; and the 1894 piece, issued between 20th June and 31st December, 1894, consequently shows A.R. 58. If your correspondent will refer to the proclamation for dissolving the last Parliament, he will find that it was superscribed, "This 8th day of July, in the year of our Lord 1895, and in the 59th year of our reign;" further proving no error exists as regards the regnal year on the coin in question.' I may also add to the foregoing a specimen of a very rare proclamation, viz., the first proclamation of the new Warden the Cinque Ports. Its terms are as follows:—'Dated at Hatfield, in the County of Herts, under the seal of my office, the thirtieth day of June, in the sixtieth year of the reign of our Sovereign Lady Victoria, by grace of God of

(128) The era of Victoria is an allowable expression.

the United Kingdom of Great Britain and Ireland Queen, and of India Empress, Anno Domini, 1896.—SALISBURY.'

96. Although the 'anno regni' is placed on certain coins, and is inserted in proclamations, it does not nowadays find a place in the Acts of Parliament; and these bear simply the day, month, and year (A.D.) in which the royal assent is given. 'Anno regni' is evidently only a dutiful surplusage.

## CHAPTER X.

# Chronology in the Indian Empire.

AT this point it will be convenient to consider the various chronologies which prevail in Hindustan, Ceylon, Burmah, and Further India. The ruling calendars to-day are the Bengali, Fusli, Moslem, Samvat, and Christian. Of the last, it will suffice to say that it is usually used in the postal, telegraph, and Government services. In regard to the Moslem, it is only necessary to refer the reader to section 59, and to add that there are fifty-seven millions of Mohammedans in India alone. (129) Of the other reckonings, a little history will help our enquiries.

98. In the district of Bhopal-Ujjain are the ruins of Vikramaditya. It marks in nomenculture a most important Hindoo era, the Samvat. The first year thereof corresponds to B.C. 57, and as the basis of this calendar was like the Julian year, one can always find the Samvat *year* by adding fifty-seven to the year of grace. Accordingly, 1896 A.D. = Samvat 1953. Now, in Samvat 1612 (*i.e.*, 1555 A.D.), the Emperor Abkar signalized his reign by inventing the Fusli era, deriving the term from the Indian word 'fas,' which meant crops, so that a year in this era is sometimes also called the Harvest Year. Abkar resolved to make the

(129) 'In 1001 A.D. came the first wave of Mohammedanism, and soon all India fell under the Moslem domination, though the bulk of the people clung to the Hindoo religion.' Gazetteer, p. 356.

then current Samvat year agree numerically with the Moslem year, which was then 963, and to accomplish this he deducted 649 from the Samvat year (that was from 1612), thus leaving 963. (130)

99. The Samvat having, however, still held the field along with the other two, the Indian chronology of that period stood as follows :—

| *Samvat.* | *Moslem.* | *Fusli.* | *A.D.* |
|---|---|---|---|
| 1612 | 963 | 963 | Not then introduced. (131) |

100. But as the Moslem year only averages 354 days against 365 days in each of the two others, its months gradually ceased to correspond to their months, so that in this (1896) year's calendars the chronological progression stands thus :—

| *Samvat.* (132) | *Moslem.* | *Fusli.* | *A.D.* |
|---|---|---|---|
| 1953 | 1313 | 1313 | 1896 |

101. The Bengali year (133) in use in Bengal is practically the same as the Fusli year, excepting some verbal differences. It is one year in arrear, however.

102. The Fiscal year in terms of statute (134) ends half-yearly at 31st March or 30th September. This applies specially to the budget which is submitted to Parliament.

103. A traveller who recently visited India, and who recorded his observations in a series of Letters, remarks,

(130) Indian Diary, p. 37.

(131) It was about a century later before the Dutch, French, and other European nations got any footing in Hindustan.

(132) See detailed dates in section 146 *infra*.

(133) See detailed dates in section 147 *infra*.

(134) 42 and 43 Vict., Cap. 60.

'They (the Calcutta natives) had their own holidays, but they appreciated the English Sunday as a day of rest, *and they also made it their market day.*' (135) This incidental observation clearly proves how very marked is the difference between the oriental and occidental in every domain of work, thought, and daily routine.

(135) Leng, p. 36.

## CHAPTER XI.

## The French Chronologies. (136)

ONWARD from or about the year 50 B.C., the Gauls adopted the manners, customs, and calendars of the Romans, who had then subjugated the country now known as France. In the fourth and fifth centuries of the Christian era, the Teutonic barbarians gradually got a footing on the land; and on the formal withdrawal of the Romans, these hordes overran the Gallic territories. History certainly seemed to be thereby doomed. But no. By 800 A.D., chronological order had recommenced, although it was their custom to begin the year as on Christmas Day, *festum Nativitatione Christi*—a usage which, according to Nicolas, 'prevailed almost universally during the ninth century,' Thereafter the Feast of the Annunciation was held by Ecclesiastics to open their year. Then Easter became New Year Day; and, to quote from the same authority, "from the end of the eleventh century to the year 1563, the usage has been nearly universal for the monarchs in their public instruments to begin the year at Easter.' The papal indictions (137) were also used in some proclamations. But this was to be expected. To imitate Rome in these days was a cardinal virtue, except among Protestants.

105. In virtue of letters patent by Henry III. (of

(136) The fact that the extraordinary chronology invented by the Revolutionists held sway in France at the end of last century and the beginning of the present one, renders this chapter necessary.

(137) See section 22 *supra*.

France), the Gregorian correction was adopted, so that the day after the 9th December, 1582, became 20th December, and 1st January, 1583, was the next New Year's Day, although this second part of the change had been in vogue since 1563. This (the new style) continued till 1792.

106. Chief amongst the audacities of the French Revolution a century ago, its mendacious words and novel remedies, must be placed the repudiation of the Christian and adoption of a new era in chronology.(138) In terms of the Terrorists' style of reckoning, it was enacted that:—

(*a*). The first day of the first year of liberty corresponded to 22nd September, 1792. *Note.*—Though this is the initiation date, yet the new calendar was actually introduced only on 22nd November, 1793.

(*b*). Their years contained twelve newly-named months of thirty days each.

(*c*). The five days remaining of the 365 were public festivals, representing our 17th—21st September, 1793, and so on, and were dedicated to Virtue, Genius, etc.

(*d*). On the fourth years, there was a sixth 'extra day'—*jour de la Revolution.*

(*e*). They had to recognise four seasons in their year from 22nd September, autumn being the first, and containing, like the others, three months. Here they are:—

AUTUMN.

1. Vintage month. (139) 2. Foggy month. 3. Hoar-frost month.

(138) French Revolution, p. 227.

(139) This month covered the period 22nd Sept. to 21st Oct. in the Julian months, the other eleven being spread over the rest of the months of the Gregorian year.

WINTER.

4. Snowy month. 5. Rainy month. 6. Windy month.

SPRING.

7. Budding month. 8. Flowery month. 9. Pasture month.

SUMMER.

10. Harvest month. 11. Hot month. 12. Fruit month. (140)

(*f*). Weeks were abolished, a tripartite division of the month being ordered instead, viz. :—

| | | | |
|---|---|---|---|
| 1st | day of | month = | Decadi. |
| 10th | ,, | ,, | Decadi I. |
| 20th | ,, | ,, | Decadi II. |

and the other days were so many after a decadi, *e.g.*, 19th = ninth day after Decadi I.

This Revolutionists' calendar never saw its sixteenth anniversary, for Napoleon ordered the re-adoption of the Julian-Gregorian style, as from and after 1st January, 1806. (141) During its epoch it appeared, for instance, (*a*) on the title pages of publications, and (*b*) in legal deeds, the Bank of France being incorporated 13th Pluviôse, the year VIII., *i.e.*, 13th February, 1800. I also observed some time ago that the Prench Press, in suggesting that the

(140) The French for these months is as follows :—(beginning with the first autumnal month), Vendémaire, Brumaire, Fimaire, Nivôse, Pluviôse, Ventôse, Germinal, Floréal, Prairial, Messidor, Ther-midor, Fructidor.

(141) This was one of the few beneficent acts of the Emperor.

Great Exhibition of 1900 should contain a Restoration in miniature of the first French Exhibition, refers thereto as that 'of the year VI. (1798).' The years in the Revolutionist's calendar were represented by Roman, no Arabic, numerals, I., II., III., IV., V., and so on.

## CHAPTER XII.

## Kindred Sciences.—Astronomy, History, and Paleography.

HAVING now reviewed the principal chronologies which have originated in the process of time, it will be well, before giving a summary of the volume in the following chapter, to devote several sections to the important subject of those kindred arts and sciences which have been, and are, most closely allied to chronology.

108. Taking them in their natural order, astronomy may claim attention in the first place. It is worthy of notice that, to 'the ancients, Saturn was the outermost planet of the system, nothing beyond it being known. Nor, indeed, was it to be assumed that any more could possibly exist, because Mercury, Venus, the Earth, Mars, Jupiter, and Saturn, with the Sun, made seven celestial bodies of prime importance; and seven was the number of perfection.'(142)

109. It is also an impressive fact, which Sir Robert Ball mentions, that 'the stars have been studied, and some great astronomical discoveries have been made, untold ages before those to which our earliest historical records extend.' In those practically pre-historic times, the motion of the moon was the primary, and the *apparent* progression of the sun, the secondary part of the enquiry. Thereafter, observations more complete were attempted, whereby planetary conjunc-

(142) Solar System, p. 148.

tions, solar eclipses, and the visibility of comets came to have special reference to B.C. and A.D. events. Even now another authority assures us 'the Royal Observatory, at Greenwich, is beseiged, whenever Venus happens to shine brightly in the morning sky, by enquiries as to whether this is not the star of Bethlehem come once more.'

110. Quite recently, however, astronomers made intricate calculations in regard to the eve of the Advent conjunction of Venus with the planet Jupiter—the two brightest stars in the visible heavens. These two stars, astronomers averred, formed the compound temporary star which marked the Incarnation; and these two were actually in conjunction, the computations showed, on what we now call the 8th of May, B.C. 6. (143) This abnormal conjunction, being to the west of the sun, would be therefore visible as one constellation in the east shortly before sunrise on the day in question. The logical conclusions therefore are, (*a*) that the star was not *one* star, (*b*) that the phenomenon was non-supernatural, and (*c*) that its being accessory before the fact of the nativity, was accidental. The coming of the Logos is not to create human chronology, but to re-create humanity.

111. The eclipse (144) recorded as synchronous with the night of some of Herod's major atrocities, has been astronomically calculated (being a lunar eclipse) to have taken place on the 13th of our March, in the 4th year before the Christian era. But, as has been previously remarked, the whole chronology of Josephus is in a condition of suspended animation. There have been interpolations in

(143) Compare section 114 *infra* as to difference in astronomical and chronological calculations of B.C. years.

(144) Mentioned by Josephus, p. 469, Whiston. The precise date is claimed to be March 13th, 4710, of the Julian era.

his MSS. Even the adherents of the Jerusalem Talmud cannot gainsay the fact. How much more, then, must those who hold the Talmud as *pro non scripto* doubt the conclusions of both works.

112. But events much older than these have been fixed in a similar manner. Thus Sir Henry Rawlinson was able, from the occurrence of an eclipse of the sun, B.C. 763, to fix the order of the Assyrian dates indicated in, or arising from, the translation of ancient terra-cotta tablets. Again, the battle between the Median and Lydian kings long remained in history without any exact date, until Bailly, in the last century, calculated the solar eclipse which indirectly put an end to the battle; and he found that the date corresponded with our 30th September, 610 B.C.

113. Coming nearer modern times, the Norse invasion under Haco is mentioned in the Norwegian Chronicle as having taken place in one summer when 'a great darkness drew over the sun, so that only a small ring was bright round the orb.'(145) Thus unconsciously, as Tytler points out, there is afforded to modern science the date for dating Haco's great expedition, and the needful calculations show that the time was 5th Aug., 1263.

114. Of course these and the former figures, it should be stated, are given on the chronological, not the astronomical, basis, for astronomers look upon the solar year next immediately preceding our era as 0, and the year before that as 1, so that B.C. 1 to chronologers is equal to B.C. 0 among astronomers. This peculiarity will often meet difficulties as to dates, at least such dates as are commonly received by historians in connecting *pre* and *post* Advent events.

(145) Tytler, vol. i, p. 11.

115. Passing from stars to comets, it must be admitted that the want of precise regularity renders them of less account. Still the years in which they have been specially prevalent, or in which a notable one has recurred, are known as the 'Comet Years,' and it is not uncommon to hear observant folk refer to some event—its years having escaped them—as having taken place in the year, say Hally's comet, or of Donati's comet. 'It may be taken as a fact (though in no proper sense a rule) that a bright and conspicuous comet comes about once in ten years, and a very remarkable comet every thirty years. Thus we have had during the present century bright comets in 1811, 1825, 1835, 1843, 1858, 1861, 1874, and 1882, whereof these of 1811, 1843, and 1858 were specially celebrated. Tested then by either standard of words, "bright and conspicuous," or "specially celebrated," it may be affirmed that a good comet is now due.'(146) 'It is fortunate,' Sir John Herschell remarked, 'for astronomy that the confusion of dates and the irreconcilable contradictions which historical statements too often exhibit when confronted with the best knowledge we possess of the ancient reckonings of time, affect recorded observations but little. An astronomical observation of any striking and well-marked phenomenon carries with it, in most cases, abundant means of recovering its exact date.'

116. The true place of astronomy in chronology is neither so high as that which Herschell claims for it, nor so insignificant as to be neglected with safety; but midway between these two points. Chronology, without the aid of astronomy, is only an abstract science; and astronomy, severed from

(146) Solar System, p. 163.

history or from chronology, reveals records of phenomena which are cabilistic and useless. On the ground therefore, of utility alone, the two sciences are well and appropriately yoked together, as the examples mentioned prove.

117. The position of chronology as at the Middle Ages has been tersely put by the learned compilers of *Le Grand Dictionnairé Universel.* 'Chronology,' (147) they declare, 'as a science was till then (Scaliger's time, 16th century,) unknown. People wrote ancient history without any criterion, copying the dates, as everything else, from the authorities immediately under their notice, without so much as troubling themselves to reconcile the differences in these records, or indicating principles upon which the counting of years should be placed.' And who can tell what erroneous conclusions, founded upon errors in dates, have arisen and flourished?

118. It is noteworthy that the 'Father of History' as a title arose from the researches of Herodotus, who flourished in the fifth century B.C. In other words, his having existed would be as substantial to Julius Cæsar as the historic verity of the Julian calendar was to Dionysius the Little, when he invented the Christian era. Herodotus (148) opens his treatise in a manner worthy of all commendation. 'This is the publication,' the rubric runs, 'of the researches of Herodotus of Halicarnassus, in order that the actions of men may not be effaced by time.' But when he slips into chronology, one is amazed to find that he approves of the *data* of Solon, who had 'put the terms of man's life at 70 years; these 70 years then gave 25,200 days, without

(147) Grand Dictionnaire, under *chronologie.*
(148) Cary's Translation.

including the intercalary month, and if we add that month (149) to every other year in order that the seasons arriving at the proper time may agree, the intercalary months will be 35 more in the 70 years, and the days of these months will be 1,050.'

119. This method of calculating time is just another instance of how wayward would be all history without chronology. And yet what do we find? Chroniclers in every country in its infancy have devoted themselves to the task of spinning out fables, and passing these to posterity as immaculate records. I do not say that history, and accurate history, cannot be written without a chronological basis, but I do affirm that the neglect of chronology has plunged many histories otherwise meritorious into much confusion as to the origin, potency, and extinction of epochs.

120. Scaliger (150) is known as the father of chronology. He lived and died before the science of paleography was thought of. Paleography is likewise of assistance in Chronology, and is the science of deciphering, writings, especially those of ancient times, and of deciding upon their age, their authenticity, and present value. It is sometimes known as diplomatics. These three sentences will suffice to show that the great Scaliger must have wrought under serious disadvantages. (151)

121. In this science—so helpful towards accuracy in chronology—France led the way, in 1681, with Mabillon's

(149) If the first number 25,200 was correct, it follows that the year was 360 days; if the number of intercalary days 1050 in seventy years, there will be altogether 26,259, which will give 375 days to the year, so that in spite of the precaution the seasons will become confused.

(150) He lived between 1540 and 1609.

(151) He invented the Julian cycle. See section 55 *supra.*

*de re Diplomatica;* and in Scotland a treatise appeared in 1739. Thereafter Greece, Italy, and Germany were severally the objects of paleographic research; and in 1803 a similar service was performed for England. It was not, however, till 1873 that a Paleographical Society was formed in London.

122. Nowadays writings are placed under one or two classes, viz., genuine or spurious. Thus, a writing is spurious if it is not the production of the person whose name it claimed as author, or, when anonymous, it is held to be spurious if it has not sprang from the time and place of pretended origin. Again, any writing is genuine which is really the work of the author thereof, or whose name belongs to the period and place alleged for the first appearance of the MS.

123. Paleography is not specially concerned with the ethics revealed, but tells us the genuine from the spurious in writings on sun-dried bricks, oyster shells, slabs, tiles, papyri, parchment, medals, bones, coins, metals, paper, ivory, bark, leather, lead, wood, or other substance used for recording the thoughts of mankind. The necessity at the moment, or the ingenuity of man, has often shown itself by the strangest methods of chronicling events. (152)

124. Chronology, when founded on paleography, becomes a more exact science; and, consequently, the elaborate tables of dates which in the last century were looked upon as perfectly accurate, have been relegated to the limbo of the effete. A copy—perhaps a copy of a tenth copy—of a writing was too often regarded as the original, and dateless

(152) Specimens of writings on all the substances mentioned are in the British Museum.

documents were accorded a startling antiquity. (153) The paleographist, perusing, (154) observe, however, that the

| | WRITINGS IN | KNOWS THEY ARE | OF THE |
|---|---|---|---|
| 1 | Hieroglyphics | Egyptian | IX. to XXI. dynasties: the best about 3000 B.C. |
| 2 | Cuneiform | Assryrian or Persian | 200 to 230 B.C. |
| 3 | Sanskrit | Ancient Indian | To about 300 B.C. |
| 4 | Uncials | Hebrew, Latin, Grecian | 1 to 800 A.D. |
| 5 | Cursive | The same, or Saxon | From 900 A.D. |

earliest *uncial* of precise date is found in the record of sale by Didymus and his wife to Miccalus of a date in the first century, now specified 3rd June, 88 A.D. (British Museum MSS., Case A, No. 6), the A.R. (7th) of Domition being given.

125. In regard to printing, it is important to bear in mind that in 593 A.D. the Chinese Emperor Wan-ti ordered a collection of the syllabic texts with the view to their being officially printed; but there was no great use of printing in China until the tenth century of the Christian era.

126. Printing in Europe was, however, much later; and the following table shows the Western progress of the art:—

| | | | |
|---|---|---|---|
| At Mentz (Mayence) a printing press was set up in | | | 1454 |
| „ Rome | „ | „ | 1467 |
| „ Paris | „ | „ | 1470 |

(153) A writing was once foisted upon the public as being of the tenth century. Externally it seemed to be valid, but the little pronoun 'its' occurred on the text, and modern paleography rightly held the document to be spurious, for this pronoun is a post—Restoration one.
(154) This list, compiled by myself, does not pretend to be exhaustive.

| | | |
|---|---|---|
| „ Westminster | a printing press was set up in | 1477 |
| „ Edinburgh | „ „ | 1507 |
| „ Wilna (Russia) | „ „ | 1525 |
| „ Dublin | „ „ | 1551(155) |

There is no doubt that the invention of printing was opportune, and was most favourable to progress in chronology. It stood ready at the behest of such masters as Scaliger and Gregory, and their efforts in this connection acquired a speedy publicity which, under a merely manuscript mode of promulgation, would have been slow, partial, and not so accurately done. But it was when printing gave us the daily press that it did the chief service to chronology. Every newspaper is headed with the day, month, and year, according to the different eras in vogue in different nations.

127. The water-marks in paper—naming the mill and giving the year—are further modern means of preventing the spurious from being palmed off as genuine. And the stamp laws (requiring embossed stamps for deeds) have been of special service in detecting fabricated dates.

(155) The dates are as given by the British Museum authorities.

## CHAPTER XIII.

## Concluding Summary.

HAVING now surveyed in detail the practical and historical eras, it will be convenient to sum up the principal points already considered. The reader will have noticed that there is a considerable variation in value as regards chronological terms—a 'year' meaning one thing to Jews, another to Christians, and having a different meaning for non-Christian nations. Even in our own country, there are several sorts of years—the civil, fiscal, leap, and common years. For instance, the civil year in Britain and her possessions begins 1st January at twelve o'clock midnight. The fiscal year may begin from any day, as the opening of a business, but our imperial fiscal year opens on 5th April, because the old style, *plus* the eleven omitted days, prevails in the British Exchequer. (156)

129. Again, the British, in common with the French, Germans, and the Americans, count a new day as beginning so soon as midnight of the previous one has struck. The modern astronomers in all countries take twelve o'clock noon (local time) as the starting point of the day.

130. In the course of a transatlantic voyage, the word 'day' presents some curious meanings:—the 'average length of the day on a twenty-knot Atlantic liner, going

(156) See the imperial tax notices and vouchers.

*eastward*, is twenty-three hours, ten minutes ; going *westward* it is twenty-four hours, fifty minutes.' (157) And the same authority points out how the 'time is changed daily ; on the eastward trip the clocks are set forward four minutes for each degree of longitude, while in going to the westward, they are set backward four minutes for the same interval.' But now to return.

131. The beginning of a new day to each of the Jews, Austrians, and Chinese is sunset ; and sunrise among the modern Greeks and the Persians. (158) The expression, working day, is used as meaning either the employee's day of labour, or in contra-distinction to days of rest. The term Halcyon days, sometimes met with in ancient histories, refers to the seven days of both sides of the shortest day.

132. In Jerusalem there are at present three 'sabbaths' each week—Moslem, Jewish, and Christian. This is a startling fact. (159)

133. Some calendars, such as the famous Almanach de Gothâ, bring down annually to date, the best known of the ancient and purely historical chronologies, giving its readers the eras of the Olympiads and Nabonassur, also to the year of Rome, the Jewish ancient era, and the Julian period. It may be urged in favour of the continuations that they arrest attention in these days of high pressure. Anything which tends to make people think should be encouraged. When a person, on opening the almanac, finds the current year of grace and historic cycles side by side, his mind is

(157) Over the Ocean, p. 15. (158) Brewer, p. 334.

(159) But be it remembered that the phase Holy Day varies with race and place ; in Christendom it is Sunday, in Persia Tuesday, by the Nile Thursday, among the Turks Friday, and to the Hebrews it is Saturday, beginning at sundown on the Friday.

directed to the chronological transitions which have taken place. Or observing that not one of the ancient cycles starts from the same year, he may marvel at the uncertainty revealed regarding the beginning of mundane things. (160) He will be compelled to abandon the belief—which until recently was common property—that the world was made in a certain year, and within six specified days therein of twenty-four hours each, and when he reads the foregoing chapters he will see how futile was the belief in question, how absurd and futile for any human being, however eminent, to select some archaic date as Anno Mundi I. But on such emperical selections, chronology has too long been placed. The more arbitrary the date, the more abject the adulation of the thoughtless. No greater fallacy can be imagined than that of fixing the creation era in any week, month, or year. It is impossible and unnecessary. Impossible—from the unique diversity of opinions; unnecessary—because practical people see a creation evolving from day to day, and year to year.

134. Neither do other historical cycles—those which are not brought down to date in modern almanacs—alter the views which stern facts compel one to take. But these eras may be repeated in passing, namely:—the Metonic, (161) Callippic, (162) China's eras, (163) and the era of the French Revolution. (164)

135. The practical chronologies are those which hold sway over the histories, customs, religions, and laws of the nations at present. These are as follows:—

(160) Chapter iv., *supra.* (161) See section 57, *supra.*
(162) See section 51, *supra.* (163) See section 10, *supra.*
(164) In chapter 106, *supra.*

1. The Christian era.
2. Era of Hegira.
3. China's Anno Regni.
4. Jewish calendar.
5. Russian or old style.
6. Samvat era.
7. Bengali calendar.
8. Fusli calendar.
9. The indication cycles.

136. A table such as the foregoing will show how utterly insular it is—a proof also of narrow-mindedness—to claim the quality of universality for any one chronology. (165) Even in Europe, the continent of 'light and leading,' there are four calendars in daily use, New Style, Old Style, Jewish, and Hegira. In the two Americas the Christian era is the rule, though the Jewish is an important exception. In Asia, legion is the appropiate chronological adjective for:—

| | | | |
|---|---|---|---|
| A.H. and A.D. | are predominant | in | Turkey in Asia |
| A.H. | ,, | ,, | Arabia |
| A.D., A.M., and A.H. | ,, | ,, | Palestine |
| A.H. | ,, | ,, | Persia |
| Nos. 6, 7, 8 (*supra*), also A.H. and A.D. | ,, | ,, | India |
| Regnal year, lunar month, no week, cycles of 60 in histories, and A.H. | ,, | ,, | China |
| Regnal years and lunar months | ,, | ,, | Japan |
| A.D. (old style) | ,, | ,, | Asiatic Russia |

(165) The charge of insularity in the analogous domain of weights and measures has been levelled very recently at British commerce.

137. In taking a concise survey, the population basis is the best for summing up the chronological principles, as it practically includes a geographical criterion, (166) which alone would be too arbitrary, and obviates interjected references to purely provincial calendars. Adopting the most recent statistics, (167) a table containing the following essential calculations can be constructed :—

| Continents. | Pron. of world's pop. | Predominant chronology. | Other styles current therein. |
|---|---|---|---|
| Europe | 3/14th | Christian | Jewish and Moslem |
| Asia | 8/14th | Regnal bases, fusli, etc., eras | Christian and Moslem |
| Africa | 1/14th | Aboriginal recks: | Moslem and Christian |
| Australia, Tasmania, Oceanic Islands | 1/28th | Christian | Aboriginal recks: |
| Polar Regions | 1/28th | Aboriginal recks. | Christian |
| America, S. & N. | 1/14th | Christian | Jewish and Moslem |

(166) What a vast advance there has been in geographical knowledge cannot be better proved than by quoting the opening sentence of the *Geographia*, written by Pomponius Mela about 40 A.D., which reads, 'Universus terrarum orbis in tres partes dividitur, Europam, Asiam, Africam.'

(167) According to Wagner and Supar, quoted in Gazetteer, p. 766.

## CHAPTER XIV.

# The Great Calendars.

DOUBTLESS nowadays, with the help of almanacs, diaries, and the daily press, any incident can be dated to its particular day in any week and month as well as to the year in the century. Yet two-thirds of nineteen hundred years had run before almanacs were in vogue at all. Now they have become so very numerous as to need (for classified nomenclature) one bulky foolscap volume in the British Museum Library for themselves. A century ago their circulation was limited and intermittent; (168) it is just six decades since the stamp impost of fifteen-pence was abolished. (169)

139. Almanac is the Arabic *al manac* (the diary). Verstegen says it is the Saxon *al mon aght* (all moon heed), and that it refers to the tallies of the full and new moons kept by our Saxon ancestors—one of these tallies may still be seen at St. John's College, Cambridge. (170)

140. Very recently, certain American authorities suggested a new calendar. In this system, the year would be divided

(168) In order to fix a certain date, the parish minister depored as to the accuracy of a marriage certificate, as 'in remote districts little attention is paid to the calendar, people measuring time as so many days or weeks before or after some well-known event.' See report of Chacheod's trial for murder; Inverness, 31st Sep., 1831.

(169) By the statute 4 and 5 Will IV. cap: 57. Six years before these Nautical Almanacs were exempted from duty.

(170) Brewer, p. 36.

into thirteen months. The first twelve months to contain twenty-eight days each, whilst the thirteenth would have twenty-nine days, except in leap year, when there would be thirty days. It is claimed for this calendar that it would be exceedingly practical and of undoubted value in the great commercial world. For instance, each month being composed of four weeks, the days of each week would always fall on the same dates of the months. Thus, if the 1st of January was a Monday, it would follow that the 1st, the 8th, the 15th, and 22nd of February, and the following months, would also be a Monday. And so on with Tuesday, which would fall on the 2nd, the 9th, the 16th, and 23rd throughout the year. (171)

(171) The American originators of this scheme intend to submit same to an International Congress at the Paris Exhibition in 1900. Doubtless these gentlemen were aware of the S.I. Report of 1888, which mentions the difficulties of the earliest chronology how 'uncertainty grows from years into decades, and from decades into centuries, until, in the earliest existing traditions it becomes supreme."

## 141. The Roman Calendar.

| Present Days of the Month. | March, May, July, October, have thirty-one days. | January, August, December, have thirty-one days. | April, June, September, November, have thirty days. | February has twenty-eight days, and in Leap Year twenty-nine. |
|---|---|---|---|---|
| 1 | Kalendis (172) | Kalendis | Kalendis | Kalendis |
| 2 | VI. } Ante | IV. } Ante | IV. } Ante | IV. } Ante |
| 3 | V. } Nonas | III. } Nonas | III. } Nonas | III. } Nonas |
| 4 | IV. | Pridie Nonas | Pridie Nonas | Pridie Nonas |
| 5 | III. | Nonis | Nonis | Nonis |
| 6 | Pridie Nonas | VIII. | VIII. | VIII. |
| 7 | Nonis (172) | VII. | VII. | VII. |
| 8 | VIII. | VI. } Ante | VI. } Ante | VI. } Ante |
| 9 | VII. | V. } Idus | V. } Idus | V. } Idus |
| 10 | VI. } Ante | IV. | IV. | IV. |
| 11 | V. } Idus | III. | III. | III. |
| 12 | IV. | Pridie Idus | Pridie Idus | Pridie Idus |
| 13 | III. | Idibus | Idibus | Idibus |
| 14 | Pridie Idus | XIX. | XVIII. | XVI. |
| 15 | Idibus (172) | XVIII. | XVII. | XV. |
| 16 | XVII. | XVII. | XVI. | XIV. |
| 17 | XVI. | XVI. | XV. | XIII. |
| 18 | XV. | XV. | XIV. | XII. |
| 19 | XIV. | XIV. | XIII. | XI. |
| 20 | XIII. | XIII. | XII. | X. } Ante Kalendas Martias. |
| 21 | XII. | XII. | XI. | IX. |
| 22 | XI. | XI. | X. | VIII. |
| 23 | X. } Ante Kalendas (of the month following) | X. } Ante Kalendas (of the month following) | IX. } Ante Kalendas (of the month following) | VII. |
| 24 | IX. | IX. | VIII. | VI. |
| 25 | VIII. | VIII. | VII. | V. |
| 26 | VII. | VII. | VI. | VI. |
| 27 | VI. | VI. | V. | III. |
| 28 | V. | V. | IV. | Pridie Kalendas Martias (173) |
| 29 | IV. | VI. | III. | |
| 30 | III. | III. | Pridie Kalendas (of the month following) | |
| 31 | Pridie Kalendas (of the month following) | Pridie Kalendas (of the month following) | | |

(172) See section 20 *supra*.

(173) The Romans, of course, had no weeks, although Cicero uses *hebdomas* to indicate the critical seventh day in diseases.

## 142. The British Calendar.

*January hath XXXI. days.*

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1 | a | Calendæ | Circumcision | 17 | c | 16 Cal. | |
| 2 | b | 4 Non. | | 18 | d | 15 Cal. | Prisca, Rom. V. and S. |
| 3 | c | 3 Non. | | 19 | e | 14 Cal. | |
| 4 | d | Pr. Non. | | 20 | f | 13 Cal. | Fabian, B. of Rom. M. |
| 5 | e | Nonæ | | 21 | g | 12 Cal. | Agnes, Rom. V. and M. |
| 6 | f | 8 Id. | Epiphany | 22 | a | 11 Cal. | Vinc. Span. Deac. M. |
| 7 | g | 7 Id. | | 23 | b | 10 Cal. | |
| 8 | a | 6 Id. | Lucian Priest g. M. | 24 | c | 9 Cal. | |
| 9 | b | 5 Id. | | 25 | d | 8 Cal. | Conv. of S. Paul |
| 10 | c | 4 Id. | | 26 | e | 7 Cal. | |
| 11 | d | 3 Id. | | 27 | f | 6 Cal. | |
| 12 | e | Pr. Id. | | 28 | g | 5 Cal. | |
| 13 | f | Idus | Hillary, Bish. and Con. | 29 | a | 4 Cal. | |
| 14 | g | 19 Cal. Feb. | | 30 | b | 3 Cal. | K. Charles, Mart. (174) |
| 15 | a | 18 Cal. | | 31 | c | Pr. Cal. | |
| 16 | b | 17 Cal. | | | | | |

(174) Abolished. See section 94 *supra*.

THE BRITISH CALENDAR (continued.)

*February hath XXVIII. days, and on every Leap Year XXIX. days.*

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1 | d | Calendæ | Fast | 16 | e | 14 Cal. | |
| 2 | e | 4 Non. | Purification V. M. | 17 | f | 13 Cal. | |
| 3 | f | 3 Non. | Blasius, Bis. and Mart. | 18 | g | 12 Cal. | |
| 4 | g | Pr. Non. | | 19 | a | 11 Cal. | |
| 5 | a | Nonæ | Agatha, Sicilian V. and M. | 20 | b | 10 Cal. | |
| 6 | b | 8 Id. | | 21 | c | 9 Cal. | |
| 7 | c | 7 Id. | | 22 | d | 8 Cal. | |
| 8 | d | 6 Id. | | 23 | e | 7 Cal. | Fast |
| 9 | e | 5 Id. | | 24 | f | 6 Cal. | St. Matthias, A. M. |
| 10 | f | 4 Id. | | 25 | g | 5 Cal. | |
| 11 | g | 3 Id. | | 26 | a | 4 Cal. | |
| 12 | a | Pr. Id. | | 27 | b | 3 Cal. | |
| 13 | b | Idus | | 28 | c | Pr. Cal. | |
| 14 | c | 16 Cal. Mar. | Valentine Bish. g. M. | 29 | | | |
| 15 | d | 15 Cal. | | | | | |

## The British Calendar (continued).

*March hath XXXI. days.*

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 1 | d | Calendæ | David, Archb. Menev. | | 17 | f | 16 Cal. | |
| 2 | e | 6 Non. | Cedde or Chad, B. Letc. | | 18 | g | 15 Cal. | Ed., K. of West Sax. |
| 3 | f | 5 Non. | | | 19 | a | 14 Cal. | |
| 4 | g | 4 Non. | | | 20 | b | 13 Cal. | |
| 5 | a | 3 Non. | | 14 | 21 | c* | 12 Cal. | Benedict Abbot. |
| 6 | b | Pr. Non. | | 3 | 22 | d | 11 Cal. | |
| 7 | c | Nonæ | Perpetua Mauret, Mart. | | 23 | e | 10 Cal. | |
| 8 | d | 8 Id. | | 11 | 24 | f | 9 Cal. | Fast. |
| 9 | e | 7 Id. | | | 25 | g | 8 Cal. | Annunciat B.V.M. |
| 10 | f | 6 Id. | | 19 | 26 | a | 7 Cal. | |
| 11 | g | 5 Id. | | 8 | 27 | b | 6 Cal. | |
| 12 | a | 4 Id. | Greg. M.B. of R. and C. | | 28 | c | 5 Cal. | |
| 13 | b | 3 Id. | | 16 | 29 | d | 4 Cal. | |
| 14 | c | Pr. Id. | | 5 | 30 | e | 3 Cal. | |
| 15 | d | Idus | | | 31 | f | Pr. Cal. | |
| 16 | e | 17 Cal. Apr. | | | | | | |

* The numbers here prefixed to the several days between the 21st day of March and the 18th day of April, both inclusive, denote the days upon which those full moons do fall which happen upon, or next after, the 21st day of March, in those years of which they are respectively the Golden Number. And the Sunday letter next following any such full moon, points out Easter Day for that year. All which holds until the year of our Lord 1899 inclusive, after which year, the places of these Golden Numbers will have to be changed.

THE BRITISH CALENDAR (continued).

*April hath XXX. days.*

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 13 | 1 | g | Calendæ | | | 16 | a | 16 Cal. | |
| 2 | 2 | a | 4 Non. | | 7 | 17 | b | 15 Cal. | |
| | 3 | b | 3 Non. | Richard, Bish. of Chich. | 6 | 18 | c | 14 Cal. | |
| 10 | 4 | c | Pr. Non. | S. Ambrose, B. of Mel. | | 19 | d | 13 Cal. | Alphege, Archb. Cant. |
| | 5 | d | Nonæ | | | 20 | e | 12 Cal. | |
| 18 | 6 | e | 8 Id. | | | 21 | f | 11 Cal. | |
| 7 | 7 | f | 7 Id. | | | 22 | g | 10 Cal. | |
| | 8 | g | 6 Id. | | | 23 | a | 9 Cal | S. George, Martyr |
| 15 | 9 | a | 5 Id. | | | 24 | b | 8 Cal. | |
| 4 | 10 | b | 4 Id. | | | 25 | c | 7 Cal. | S. Mark, Chan. and Mart. |
| | 11 | c | 3 Id. | | | 26 | d | 6 Cal. | |
| 12 | 12 | d | Pr. Id. | | | 27 | e | 5 Cal. | |
| 1 | 13 | e | Idus | | | 28 | f | 4 Cal. | |
| | 14 | f | 16 Cal. Maii | | | 29 | g | 3 Cal. | |
| 9 | 15 | g | 17 Cal. | | | 30 | a | Pr. Cal. | |

THE BRITISH CALENDAR (continued).

*May hath XXXI. days.*

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1 | b | Calendæ | S. Phil. and Jac. A. and M. | 17 | d | 16 Cal. | |
| 2 | c | 6 Non. | | 18 | e | 15 Cal. | |
| 3 | d | 5 Non. | Invention of Cross | 19 | f | 14 Cal. | Dunstan, Archb. Cant. |
| 4 | e | 4 Non. | | 20 | g | 13 Cal. | |
| 5 | f | 3 Non. | | 21 | a | 12 Cal. | |
| 6 | g | Pr. Non. | S. John Evang. Ante Port. Lat. | 22 | b | 11 Cal. | |
| | | | | 23 | c | 10 Cal. | |
| 7 | a | Nonæ | | 24 | d | 9 Cal. | |
| 8 | b | 8 Id. | | 25 | e | 8 Cal. | |
| 9 | c | 7 Id. | | 26 | f | 7 Cal. | Aug. first, Archb. Cant. |
| 10 | d | 6 Id. | | 27 | g | 6 Cal. | Venerable Bede, Pr. |
| 11 | e | 5 Id. | | 28 | a | 5 Cal. | |
| 12 | f | 4 Id. | | 29 | b | 4 Cal. | K. Charles II., Nat. and Return (176) |
| 13 | g | 3 Id. | | | | | |
| 14 | a | Pr. Id. | | 30 | c | 3 Cal. | |
| 15 | b | Idus | | 31 | d | Pr. Cal. | |
| 16 | c | 17 Cal. Jun. | | | | | |

(176) Abolished. See section 94 *supra*.

THE BRITISH CALENDAR (continued).

*June hath XXX. days.*

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1 | e | Calendæ | Nicom. Rom. Pr. and M. | 17 | g | 15 Cal. | S. Alban, Mart. |
| 2 | f | 4 Non. | | 18 | a | 14 Cal. | |
| 3 | g | 3 Non. | | 19 | b | 13 Cal. | |
| 4 | a | Pr. Non. | | 20 | c | 12 Cal. | Transl. of Edw., K. of West Sax. |
| 5 | b | Nonæ | Bonif. B. of Mentz, M. | | | | |
| 6 | c | 8 Id. | | 21 | d | 11 Cal. | |
| 7 | d | 7 Id. | | 22 | e | 10 Cal. | |
| 8 | e | 6 Id. | | 23 | f | 9 Cal. | Fast |
| 9 | f | 5 Id. | | 24 | g | 8 Cal. | Nativity of S. J. Baptist |
| 10 | g | 4 Id. | | 25 | a | 7 Cal. | |
| 11 | a | 3 Id. | S. Barnab. A. M. | 26 | b | 6 Cal. | |
| 12 | b | Pr. Id. | | 27 | c | 5 Cal. | |
| 13 | c | Idus | | 28 | d | 4 Cal. | Fast |
| 14 | d | 18 Cal. Julii | | 29 | e | 3 Cal. | S. Peter A. and M. |
| 15 | e | 17 Cal. | | 30 | f | Pr. Cal. | |
| 16 | f | 16 Cal. | | | | | |

THE BRITISH CALENDAR (continued).

*July hath XXXI. days.*

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1 | g | Calendæ | | 17 | b | 16 Cal. | |
| 2 | a | 6 Non. | Visit of the B. V. Mary | 18 | c | 15 Cal. | |
| 3 | b | 5 Non. | | 19 | d | 14 Cal. | |
| 4 | c | 4 Non. | Trans. of S. Mart, B. and C. | 20 | e | 13 Cal. | Marg. V. and M. Antioch |
| 5 | d | 3 Non. | | 21 | f | 12 Cal. | |
| 6 | e | Pr. Non. | | 22 | g | 11 Cal. | S. Mary Magdalene |
| 7 | f | Nonæ | | 23 | a | 10 Cal. | |
| 8 | g | 8 Id. | | 24 | b | 9 Cal. | Fast |
| 9 | a | 7 Id. | | 25 | c | 8 Cal. | S. James, A. and M. |
| 10 | b | 6 Id. | | 26 | d | 7 Cal. | S. Anne, Mother to the Bl. Virg. Mary |
| 11 | c | 5 Id. | | | | | |
| 12 | d | 4 Id. | | 27 | e | 6 Cal. | |
| 13 | e | 3 Id. | | 28 | f | 5 Cal. | |
| 14 | f | Pr. Id. | | 29 | g | 4 Cal. | |
| 15 | g | Idus | Swithun, B. of Win., Transl. | 30 | a | 3 Cal. | |
| 16 | a | 17 Cal. Aug. | | 31 | b | Pr. Cal. | |

THE BRITISH CALENDAR (continued).

*August hath XXXI. days.*

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1 | c | Calendæ | Lammas-day | 17 | e | 16 Cal. | |
| 2 | d | 4 Non. | | 18 | f | 15 Cal. | |
| 3 | e | 3 Non. | | 19 | g | 14 Cal. | |
| 4 | f | Pr. Non. | | 20 | a | 13 Cal. | |
| 5 | g | Nonæ | | 21 | b | 12 Cal. | |
| 6 | a | 8 Id. | Transfig. of our Lord | 22 | c | 11 Cal. | |
| 7 | b | 7 Id. | Name of Jesus | 23 | d | 10 Cal. | Fast. |
| 8 | c | 6 Id. | | 24 | e | 9 Cal. | S. Barthol., A. and M. |
| 9 | d | 5 Id. | | 25 | f | 8 Cal. | |
| 10 | e | 4 Id. | S. Laur., Arch. D. of R. & M. | 26 | g | 7 Cal. | |
| 11 | f | 3 Id. | | 27 | a | 6 Cal. | |
| 12 | g | Pr. Id. | | 28 | b | 5 Cal. | S. Au., B. of Hip. C. D. |
| 13 | a | Idus | | 29 | c | 4 Cal. | Beheading of John Bap. |
| 14 | b | 19 Cal. Sep. | | 30 | d | 3 Cal. | |
| 15 | c | 18 Cal. | | 31 | e | Pr. Cal. | |
| 16 | d | 17 Cal. | | | | | |

## The British Calendar (continued).

*September hath XXX. days.*

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1 | f | Calendæ | Giles, Abbot g. Conf. | 17 | a | 15 Cal. | Lambert, Bish. g. M. |
| 2 | g | 4 Non. | | 18 | b | 14 Cal. | |
| 3 | a | 3 Non. | | 19 | c | 13 Cal. | |
| 4 | b | Pr. Non | | 20 | d | 12 Cal. | Fast. |
| 5 | c | Nonæ | | 21 | e | 11 Cal. | S. Matthew, A. C. and M. |
| 6 | d | 8 Id. | | 22 | f | 10 Cal. | |
| 7 | e | 7 Id. | Enurchus, B. of Orleans | 23 | g | 9 Cal. | |
| 8 | f | 6 Id. | Nativity of the B. V. M. | 24 | a | 8 Cal. | |
| 9 | g | 5 Id. | | 25 | b | 7 Cal. | |
| 10 | a | 4 Id. | | 26 | c | 6 Cal. | S. Cyprian, Archb. of Carth and Mar. |
| 11 | b | 3 Id. | | | | | |
| 12 | c | Pr. Id. | | 27 | d | 5 Cal. | |
| 13 | d | Idus | | 28 | e | 4 Cal. | |
| 14 | e | 18 Cal. Oct. | Holy Cross Day | 29 | f | 3 Cal. | S. Mich. and All An. |
| 15 | f | 17 Cal. | | 30 | g | Pr. Cal. | S. Jer., Pr. Conf. and Doct. |
| 16 | g | 16 Cal. | | | | | |

THE BRITISH CALENDAR (continued).

*October hath XXXI. days.*

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1 | a | Calendæ | Remig, B. of Rhemes | 17 | c | 16 Cal. | Etheldred, Virg. |
| 2 | b | 6 Non. | | 18 | d | 15 Cal. | S. Luke, Evan. |
| 3 | c | 5 Non. | | 19 | e | 14 Cal. | |
| 4 | d | 4 Non. | | 20 | f | 13 Cal. | |
| 5 | e | 3 Non. | | 21 | g | 12 Cal. | |
| 6 | f | Pr. Non. | Faith, Virgin and Mart. | 22 | a | 11 Cal. | |
| 7 | g | Nonæ | | 23 | b | 10 Cal. | |
| 8 | a | 8 Id. | | 24 | c | 9 Cal. | |
| 9 | b | 7 Id. | S. Deny's, Areop. B. and M. | 25 | d | 8 Cal. | Crispin, Mart. |
| 10 | c | 6 Id. | | 26 | e | 7 Cal. | |
| 11 | d | 5 Id. | | 27 | f | 6 Cal. | Fast |
| 12 | e | 4 Id. | | 28 | g | 5 Cal. | S. Simon and S. Jn., A. and M. |
| 13 | f | 3 Id. | Transl. of K. Ed. Conf. | | | | |
| 14 | g | Pr. Id. | | 29 | a | 4 Cal. | |
| 15 | a | Idus | | 30 | b | 3 Cal. | |
| 16 | b | 17 Cal. Nov. | | 31 | c | Pr. Cal. | Fast |

## The British Calendar (continued).

*November hath XXX. days.*

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1 | d | Calendæ | All Saints' Day | 16 | e | 16 Cal. | |
| 2 | e | 4 Non. | | 17 | f | 15 Cal. | Hugh, Bish. of Linc. |
| 3 | f | 3 Non. | | 18 | g | 14 Cal | |
| 4 | g | Pr. Non. | | 19 | a | 13 Cal. | |
| 5 | a | Nonæ | Papists' Conspiracy (177) | 20 | b | 12 Cal. | Edmund, King and Mart. |
| 6 | b | 8 Id. | Leonard, Confessor | 21 | c | 11 Cal. | |
| 7 | c | 7 Id. | | 22 | d | 10 Cal. | Cecilia, Virg. and Mart. |
| 8 | d | 6 Id. | | 23 | e | 9 Cal. | S. Clem., I. B. of R. and M. |
| 9 | e | 5 Id. | | 24 | f | 8 Cal. | |
| 10 | f | 4 Id. | | 25 | g | 7 Cal. | Catherine, Vir. and Mar. |
| 11 | g | 3 Id. | S. Martin, Bish. and Conf. | 26 | a | 6 Cal. | |
| 12 | a | Pr. Id. | | 27 | b | 5 Cal. | |
| 13 | b | Idus | Britius, Bishop | 28 | c | 4 Cal. | |
| 14 | c | 18 Cal. Dec. | | 29 | d | 3 Cal. | Fast |
| 15 | d | 17 Cal. | Machulus, Bishop | 30 | e | Pr. Cal. | S. Andrew, A. and M. |

(177) Abolished. See section 94 *supra*.

THE BRITISH CALENDAR (continued).

*December hath XXXI. days.*

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1 | f | Calendæ | | 16 | g | 17 Cal. | O. Sapientia |
| 2 | g | 4 Non. | | 17 | a | 16 Cal. | |
| 3 | a | 3 Non. | | 18 | b | 15 Cal. | |
| 4 | b | Pr. Non. | | 19 | c | 14 Cal. | |
| 5 | c | Nonæ | | 20 | d | 13 Cal. | Fast |
| 6 | d | 8 Id. | Nichol, Bish. of Myra in Licia | 21 | e | 12 Cal. | S. Tho., Ap. and M. |
| | | | | 22 | f | 11 Cal. | |
| 7 | e | 7 Id. | | 23 | g | 10 Cal. | |
| 8 | f | 6 Id. | Concept of the B. V. M. | 24 | a | 9 Cal. | Fast |
| 9 | g | 5 Id. | | 25 | b | 8 Cal. | Christmas Day |
| 10 | a | 4 Id. | | 26 | c | 7 Cal. | S. Stephen, F. M. |
| 11 | b | 3 Id. | | 27 | d | 6 Cal. | S. John, Ap. and E. |
| 12 | c | Pr. Id. | | 28 | e | 5 Cal. | Innocents'-day |
| 13 | d | Idus | Lucy, Virgin and Mart. | 29 | f | 4 Cal. | |
| 14 | e | 19 Cal. Jan. | | 30 | g | 3 Cal. | |
| 15 | f | 18 Cal. | | 31 | a | Pr. Cal. | Silvest, Bish. of Rome. |

## 143. Jewish Calendar. (A.D. 1896, A.M. 5656-57.)

*The Year 5656 commenced September 19th, 1895.*

| | | | | |
|---|---|---|---|---|
| Jan. | 16 | New Moon | Sebat | 1 |
| Feb. | 15 | New Moon | Adar | 1 |
| „ | 27 | Fast of Esther | „ | 13 |
| „ | 28 | Purim | „ | 14 |
| „ | 29 | Shusan Purim | „ | 15 |
| Mar. | 15 | New Moon | Nisan | 1 |
| „ | 29 | Festival of Passover | „ | 15 |
| „ | 30 | „ „ 2nd day | „ | 16 |
| April | 4 | „ „ 7th day | „ | 21 |
| „ | 5 | „ „ ends | „ | 22 |
| „ | 14 | New Moon | Yiar | 1 |
| May | 1 | Festival, 33rd day of Omer | „ | 18 |
| „ | 13 | New Moon | Sivan | 1 |
| „ | 18 | Festival of Weeks | „ | 6 |
| „ | 19 | „ „ 2nd day | „ | 7 |
| June | 12 | New Moon | Tamuz | 1 |
| „ | 28 | Fast of Tamuz | „ | 17 |
| July | 11 | New Moon | Ab | 1 |
| „ | 19 | Fast, Destruction of Temple | „ | 9 |
| Aug. | 10 | New Moon | Elul | 1 |
| Sept. | 8 | First day of New Year, 5657 | Tishri | 1 |
| „ | 10 | Fast of Guedaliah | „ | 3 |
| „ | 17 | Fast of Expiation | „ | 10 |
| „ | 22 | Feast of Tabernacles | „ | 15 |
| „ | 28 | Hosana Raba | „ | 21 |
| „ | 29 | Feast of the 8th day | „ | 22 |
| „ | 30 | Rejoicing of the Law | „ | 23 |
| Oct. | 8 | New Moon | Hesvan | 1 |
| Nov. | 6 | New Moon | Kisley | 1 |
| „ | 30 | Dedication of the Temple | „ | 25 |
| Dec. | 6 | New Moon | Tebet | 1 |
| „ | 15 | Fast, Siege of Jerusalem | „ | 10 |

Note.—All the Jewish Sabbaths, Festivals, and Fasts commence the previous Evening at Sunset.

## 144. The Old Style or Russian Calendar.

| Russian and Greek Dates or O.S. | | New Style Dates used by rest of Christendom. |
|---|---|---|
| 1896. | | 1897. |
| Dec. 25 | Nativity | Jan. 6 |
| 1897. | | |
| Jan. 2 | Circumcision | ,, 14 |
| ,, 7 | Theophany (Epiphany) | ,, 19 |
| Feb. 3 | Hypapante (Purification) | Feb. 15 |
| ,, 5 | Carnival Sunday | ,, 17 |
| ,, 12 | First Sunday in Lent | ,, 24 |
| Mar. 10 | Forty Martyrs | Mar. 22 |
| ,, 18 | Palm Sunday | ,, 30 |
| ,, 23 | Great Friday (Good Friday) | April 4 |
| ,, 25 | Holy Pasch (Easter Day) | ,, 6 |
| ,, 26 | Annunciation of Theotokos | ,, 7 |
| April 24 | S. George | May 6 |
| May 3 | Ascension | ,, 15 |
| ,, 10 | S. Nicolas | ,, 22 |
| ,, 13 | Pentecost (Whit Sunday) | ,, 25 |
| ,, 14 | Holy Ghost | ,, 26 |
| June 30 | Peter and Paul, Chief Apostles | July 12 |
| Aug. 2 | First Day of Fast of Theotokos | ,, 14 |
| ,, 7 | Transfiguration | ,, 19 |
| ,, 16 | Repose of Theotokos (Assump- | Aug. 28 |
| ,, 31 | S. Alexander Nevsky [tion) | Sep. 12 |
| Sep. 9 | Nativity of Theotokos | ,, 26 |
| ,, 15 | Exaltation of the Cross | ,, 27 |
| Oct. 2 | Patronage of Theotokos | Oct. 14 |
| ,, 22 | Accession of the Emperor (178) | Nov. 3 |
| ,, 16 | First Day Fast of the Nativity | ,, 28 |
| ,, 22 | Entrance of Theotokos | Dec. 4 |
| Dec. 7 | S. Nicolas | ,, 19 |
| ,, 10 | Conception of Theotokos | ,, 22 |

(178) This date in 1896 (the coronation) is in contradistinction to the accession of the present Czar.

## 145. The Mohammedan Calendar.

| 1313. | | | 1896. | |
|---|---|---|---|---|
| 1 Shaaban | - | corresponds to | - January | 17 |
| 1 Ramadin | - | „ | - February | 15 |
| 1 Shawall | - | „ | - March | 16 |
| 1 Dulkaada | - | „ | - April | 14 |
| 1 Dulheggia | - | „ | - May | 14 |
| 1314. | | | 1896. | |
| 1 Muharran | - | „ | - June | 12 |
| 1 Saphar | - | „ | - July | 12 |
| 1 Rabia I. | - | „ | - August | 10 |
| 1 Rabia II. | - | „ | - September | 9 |
| 1 Jomada I. | - | „ | - October | 8 |
| 1 Jomada II. | - | „ | - November | 7 |
| 1 Rajab | - | „ | - December | 6 |

## 146. The Samvat Calendar.

| 1896. | | | | | 1953. | |
|---|---|---|---|---|---|---|
| March | 15 | *i.e.* | Chyt | - | Sudee | 1 |
| „ | 30 | „ | Bysack | - | Budee | 1 |
| April | 14 | „ | „ | - | Sudee | 1 |
| „ | 28 | „ | Jhyt | - | Budee 1st | 1 |
| May | 13 | „ | „ | - | Sudee 1st | 1 |
| „ | 27 | „ | „ | - | Budee 2nd | 1 |
| June | 12 | „ | „ | - | Sudee 2nd | 1 |
| „ | 26 | „ | Assar | - | Budee | 1 |
| July | 11 | „ | „ | - | Sudee | 1 |
| „ | 25 | „ | Sawun | - | Budee | 1 |
| August | 10 | „ | „ | - | Sudee | 1 |
| „ | 24 | „ | Bhadoon | - | Budee | 1 |
| September | 8 | „ | „ | - | Sudee | 1 |
| „ | 22 | „ | Kuar | - | Budee | 1 |
| October | 7 | „ | „ | - | Sudee | 1 |
| „ | 22 | „ | Kartick | - | Budee | 1 |
| November | 6 | „ | „ | - | Sudee | 1 |
| „ | 21 | „ | Aghan | - | Budee | 1 |
| December | 5 | „ | „ | - | Sudee | 1 |
| „ | 21 | „ | Poos | - | Budee | 1 |
| „ | 31 | „ | „ | - | „ | 12 |

## 147. The Bengali Calendar.

| 1896. | | | | | 1302. | |
|---|---|---|---|---|---|---|
| January | 1 | - | *i.e.* | - | Pous | 18 |
| „ | 14 | - | „ | - | Magh | 1 |
| February | 12 | - | „ | - | Falgoon | 1 |
| March | 13 | - | „ | - | Choitro | 1 |
| April | 12 | - | „ | - | Boysack | 1 |
| May | 13 | - | „ | - | Joisto | 1 |
| June | 14 | - | „ | - | Assar | 1 |
| July | 15 | - | „ | - | Srabun | 1 |
| August | 16 | - | „ | - | Bhadro | 1 |
| September | 16 | - | „ | - | Assin | 1 |
| October | 16 | - | „ | - | Kartick | 1 |
| November | 15 | - | „ | - | Aughraun | 1 |
| December | 15 | - | „ | - | Pous | 1 |
| „ | 31 | - | „ | - | „ | 17 |

Note.—The Christian Calendar is the same as in Britain, only the customary holidays are :—

| | |
|---|---|
| New Year's Day - - | 1 day |
| Good Friday - - - | 2 days |
| Empress's Birthday - - | 1 day |
| Christmastide - - - | 4 days |

Also certain holy days of the other religions are also added to the foregoing by yearly proclamations.

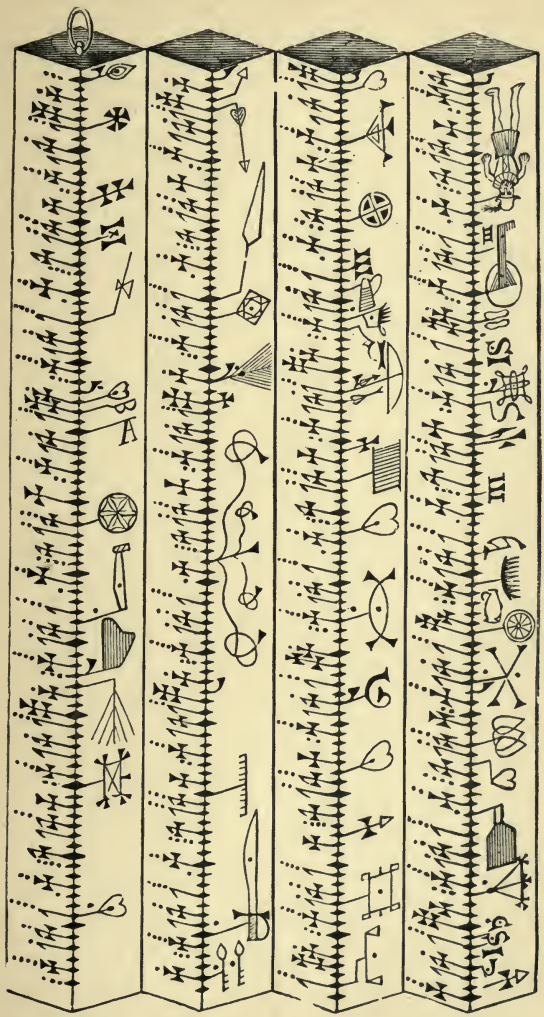
## 148. The Chinese Lunar Reckoning. (179)

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1895. | | | | | | | |
| July | 22 | - | 6th | month | 1st day | 21st | year (180) |
| August | 20 | - | 7th | „ | 1st „ | 21st | „ |
| September | 18 | - | 8th | „ | 1st „ | 21st | „ |
| October | 18 | - | 9th | „ | 1st „ | 21st | „ |
| November | 16 | - | 10th | „ | 1st „ | 21st | „ |
| December | 16 | - | 11th | „ | 1st „ | 21st | „ |
| 1896. | | | | | | | |
| January | 14 | - | 12th | „ | 1st „ | 21st | „ |
| February | 13 | - | 1st | „ | 1st „ | 22nd | „ |
| March | 14 | - | 2nd | „ | 1st „ | 22nd | „ |
| April | 13 | - | 3rd | „ | 1st „ | 22nd | „ |
| May | 12 | - | 4th | „ | 1st „ | 22nd | „ |
| June | 11 | - | 5th | „ | 1st „ | 22nd | „ |
| July | 10 | - | 6th | „ | 1st „ | 22nd | „ |
| August | 9 | - | 7th | „ | 1st „ | 22nd | „ |
| September | 7 | - | 8th | „ | 1st „ | 22nd | „ |
| October | 6 | - | 9th | „ | 1st „ | 22nd | „ |
| November | 5 | - | 10th | „ | 1st „ | 22nd | „ |
| December | 4 | - | 11th | „ | 1st „ | 22nd | „ |
| 1897. | | | | | | | |
| January | 2 | - | 12th | „ | 1st „ | 22nd | „ |

(179) Computed by myself.

(180) The present Emperor, Keang Hsii, acceded to the throne on 6th month, 5th day—12th January, 1895.

## 149. The Clog Calendar. (181)



(181) Refer to see 50 *supra*. In Chambers's "Book of Days," vol. I., p. 9, there is a very interesting description of the above

calendar. "The feasts," it is pointed out, "were denoted by symbols resembling hieroglyphics, in a manner which will be best understood by examples. Thus a peculiarly-shaped emblem referred to Circumcisio Domini on 1st January. . . . St. John the Baptist, having been beheaded with a sword, his day (June 24th) was graced with that implement. St. Lawrence had his gridiron on the 10th of August." In looking at the above plate, it must be kept in mind that it represents the four sides of a square stick, which was about eight inches long. The stick was usually hung up in some convenient corner of the mediæval dwelling-house. Mr. William Andrews, F.R.H.S., of Hull, in his "Old Church Lore," devotes a chapter to the Clog Calendar, under the title of "Symbols of the Saints." Our illustration is from his volume.

## References and Abbreviations.

| | |
|---|---|
| A.D. ... ... ... ... | anno domini = anno Christi |
| A.H. ... ... ... ... | anno Hegira |
| A.M. ... ... ... ... | anno mundi |
| A.U.C. ... ... ... ... | anno urbis conditæ (years of Rome) |
| Ante Christ. ... ... ... | Ante Christum = B.C. |
| Acton ... ... ... ... | Lecture on History (Macmillan, 1895) |
| Annales ... ... ... ... | Annales Testamenti by Usher, 1701 |
| B.E. ... ... ... ... | Bible Educator (Cassells') |
| Blackstone ... ... ... | Blackstone'sCommentaries |
| Bond ... ... ... ... | Handybook on Dates, 1866 |
| Bright ... ... ... ... | History of England (Lon., 1890) |
| Brewer ... ... ... ... | Cobham Brewer's Dict., 1895 |
| Brit. Assn. ... ... ... | British Association Report, 1894 |
| Brockmann ... ... ... | System der Chronologie (Stuttgart, 1883) |
| Chambers's ... ... ... | Encyclopædia, 1890 |
| Clinton ... ... ... ... | Fasti of Greece and Rome |
| Columba ... ... ... ... | Life of, (Iona Press, 1889) |
| Cyclus Pas. ... ... ... | Cyclus Paschalis by Dionysius the Little |
| De Gothâ ... ... ... ... | Almanach de Gothâ (Gotha, 1896) |
| Driver ... ... ... ... | Canon Driver's Isaiah (Nisbet, 1893) |
| Ency. Brit. ... ... ... | Encyclopædia Britannica |
| „ Edin. ... ... ... | „ Edinensis |
| „ Metrop. ... ... ... | „ Metropolitana |

| | |
|---|---|
| Farrar ... ... ... ... | *See* Minor Prophets |
| French Revolution ... ... | Mallet's French Revolution (London, 1893) |
| Gain or Loss ... ... ... | by B. J. Snell (London, Clarke, 1895) |
| Grand Dictionnaire ... ... | Le Grand Dictionnaire (Paris, 1869) |
| Georgiades ... ... ... | La Turquie actuelle (Paris, 1892) |
| Gazetteer ... ... ... ... | Chambers's Concise (Lon., 1895) |
| Gower ... ... ... ... | Confessio(Routledge 1889) |
| Hamilton ... ... ... ... | Chronlogical Tables, 1886 |
| Herodotus ... ... ... | Cary's Translation (Bohn) |
| Haydn ... ... ... ... | Dictionary of Dates |
| Herschell ... . . ... ... | Herschell's Astronomy |
| H. R. Empire ... ... ... | Holy Roman Empire, Bryce, 1890 |
| Indian Diary ... ... ... | Indian and Eastern Diary (Calcutta and Lon.) |
| Kings of Israel ... ... ... | Henry Hill (Lon., 1895) |
| Leng ... ... ... ... | Letters from India (Dunde, 1896) |
| Mackenzie ... ... ... | Roman Law (Blackwood) |
| Maspero ... ... ... ... | Maspero on Egypt |
| Merivale ... ... ... ... | Gen. Hist. of Rome, 1888 |
| Minor Prophets ... ... ... | by Dean Farrar (Nisbet, 1893) |
| Mommsen's Rome ... ... | Bryan's Abridgment, 1891 |
| Nicolas ... ... ... ... | The Chronology of History |
| Over the Ocean ... .. ... | by Ocean Publishing Co. (New York, 1895) |
| Paton ... ... ... ... | Biography, 1892 |
| Pouchet ... ... ... ... | The Universe (Blackie) |

| | |
|---|---|
| R.V. ... ... ... ... | Revised Version |
| Revised Statutes ... ... | The Statutes Revised. Published by Authority |
| Reg. Majes. ... ... ... | Regiam Majestatem, 1609 |
| Robertson ... ... ... | Lectures on Scotland (London, 1878) |
| Rounds ... ... ... ... | Feudal England, 1895 |
| S. A. Proceedings ... ... | Proceedings of Soc. of Antiquaries of Scotland |
| S. I. Rep. ... ... ... ... | Smithsonian Institution Report, 1888 (Washington) |
| Sandars ... ... ... ... | Sandar's Justinian |
| Schools and Schoolmasters ... | Hugh Miller's work |
| Strauss ... ... ... ... | Das Leben Jesu, Eliot's Translation, 1892 |
| System, Solar ... ... ... | by Chambers' (London, Newnes, 1895) |
| Thomson's Acts ... ... ... | Thomson's Scots' Act from 1124 |
| Tytler ... ... ... ... | History of Scotland |
| Voltaire ... ... ... ... | Histoire de Charles XII. |
| Webster ... ... ... ... | International Dict., 1891 |
| Whiston's ... ... ... ... | Josephus; Antiquities, etc. |
| Whitaker's ... ... ... | Almanack for 1896 |
| Wycliffe ... ... ... ... | N. T. by Wycliffe and Purvey, 1388 |
| Young ... ... ... ... | Indian Wigwams (London, 1894) |
| Zenobia and Palmyra ... ... | by Dr. Wright (Nelson 1895) |

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NOTE.—I am indebted to the Indian Diary for the Bengali Calendars; to Whitaker for the Jewish and Roman; and to the Almanach de Gothâ for the Moslem.

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